



The FARM JOURNAL

Home-made and **H**andy book

369 IDEAS

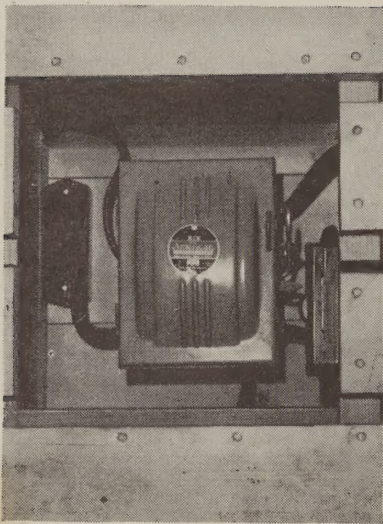
The FARM JOURNAL
HOME-MADE and HANDY BOOK

This book is a collection of 369 time- and work-saving ideas — the kind you see every month in *FARM JOURNAL*. Most of these photos appeared in our regular “Home-Made and Handy” feature. Because our readers worked out these ideas to fit only the specific problems on their own farms, no plans or blueprints are available. But we hope that these pictures, taken by the country’s leading agricultural photographers, will suggest ways for you to make troublesome farm jobs easier and quicker to do.

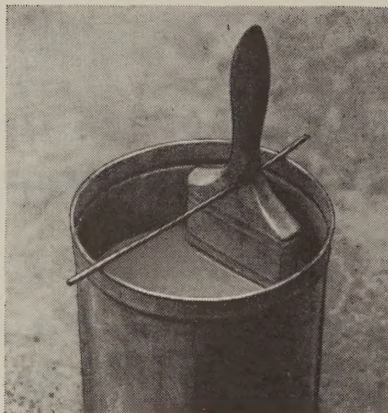
Edited by Ralph D. Wennblom and George W. Wormley
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Recessing the switch box and outlets into the alley way of the granary keeps them from getting hooked and torn loose by machines or wagons.



Soak your paint brush, but keep the bristles from curling up. Hang brush on a wire put through hole in the handle. Credit the idea to Leroy Klueter, Madison County, Ill.

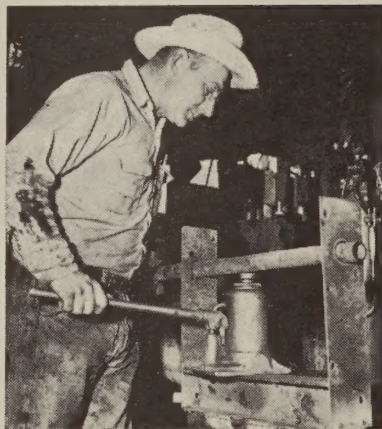
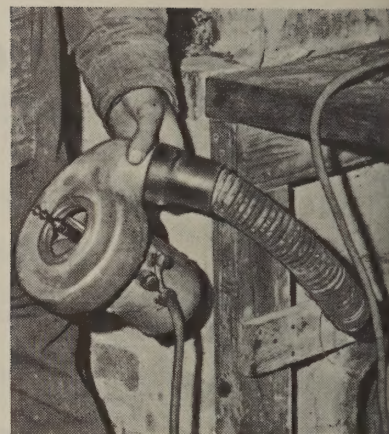


Photo: Dick Elmore

Easy way to straighten bent pipe. Edward Teisseire, Tehama Co., Calif., welded $\frac{1}{4}$ " plates to 20" I-beam, put $1\frac{1}{2}$ " holes same height as his jack.



A. M. Wettach

Don't let your wife give away the old vacuum cleaner! Willis Hinkson, Henry Co., Iowa, used theirs in making this electric forge blower.



Photo: A. M. Weltach

"Lights the shop on winter days," says Fred Herman, Washington Co., Iowa. It's a fluorescent fixture on a light-weight, telescoping stand.



Photo: A. M. Weltach

Portable yard light. End is sharpened so you can stick it into the ground. Reflector holds a 300-watt bulb. Bob Foggy, Henry Co., Iowa.

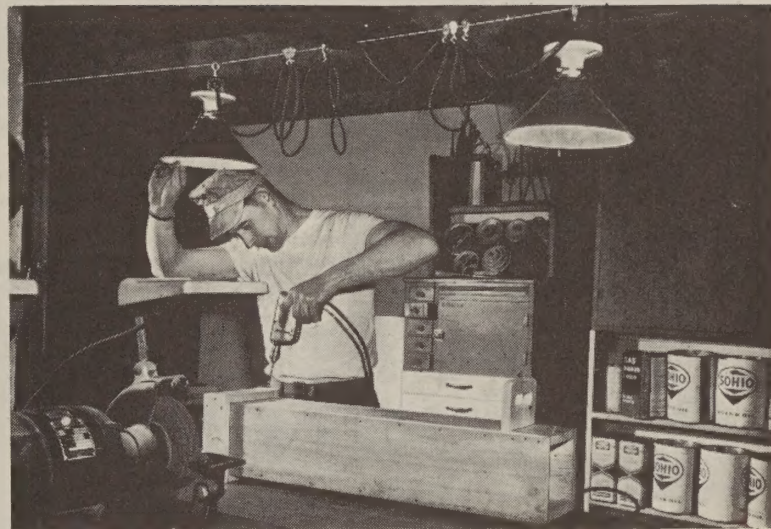


Photo: R. E. Johnson

Light exactly where you want it at the flick of your wrist. Kenneth Miller, Wood Co., Ohio, strings a wire above his work bench, and suspends light fixtures with screw eyes so that he can move them easily. To keep cord out of way, run loops through eyes on small pulleys.



Photo: A. M. Wetlach

Shop light that you can lower or raise. Put just enough sand in the tin can to balance the light, says Floyd Shafer, Jefferson Co., Iowa.

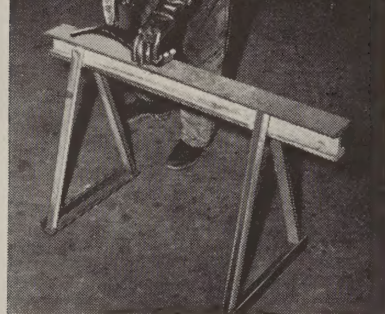
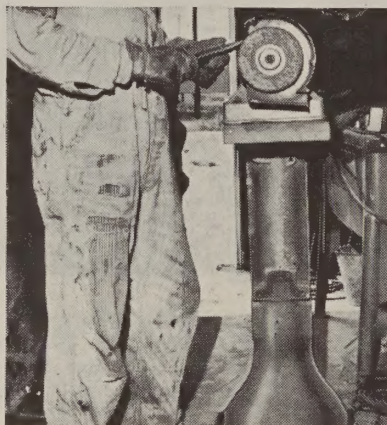


Photo: L. H. Houck

"Really an anvil, but it doubles as a saw-horse, too," says W. N. Jester, Miller Co., Mo. Weld steel legs to a 4' length of old railroad track.



Photos: A. M. Wetlach

Need a stand and base for your shop grinder? McAllister Bros., Henry Co., Iowa, used half of the axle housing from an old tractor.



Photo: C. F. Marley

This flexible hanger made of old pipe lets you put shop light right where you want it. Elbow joints are loose enough to turn, wire runs through pipe. Harry Stinn, Montgomery Co., Ill.



Photo: A. M. Weltach

An old clothes wringer roller makes a dandy rest for the sickle. John Garner, Scott Co., Iowa, raises or lowers stand with telescoping pipe.

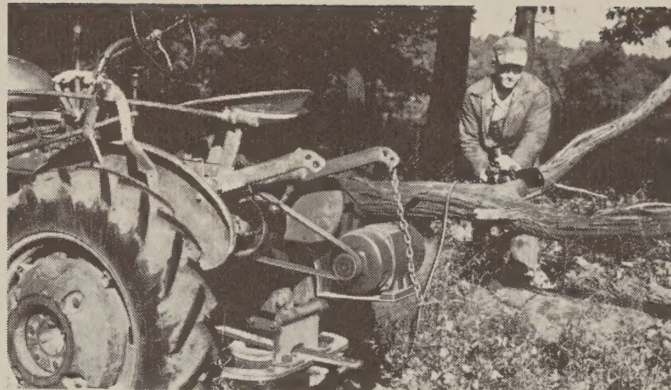


Photo: Greg Harmon

Electricity is never out of reach if you mount a generator on your tractor. John Sutton, Lake Co., Ind., uses the current to run his chain saw. Generator also supplies current when high-line fails. Chain catches generator in case the belts break.



A rubber-wrapped horseshoe on a wire "saves a heap of arm ache," says Ray Doom, hand on Norman Barlow Ranch, Sublette County, Wyo.

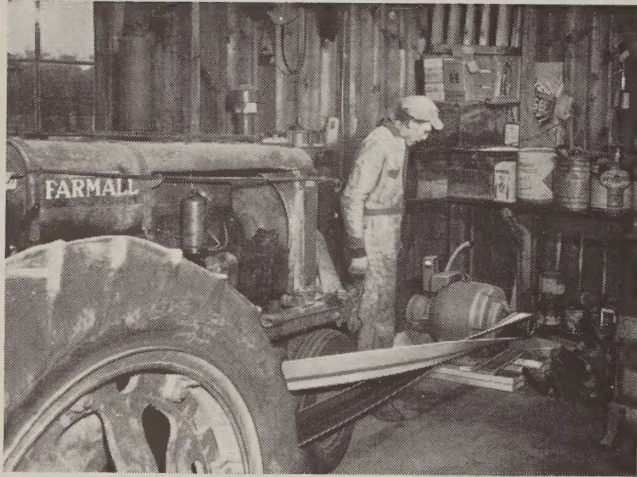


Photo: R. E. Johnson

Good spot for your stand-by generator—the building where you keep the tractor. Ray Bockbrader, Ohio, runs wires underground from generator to transfer switch at the meter.

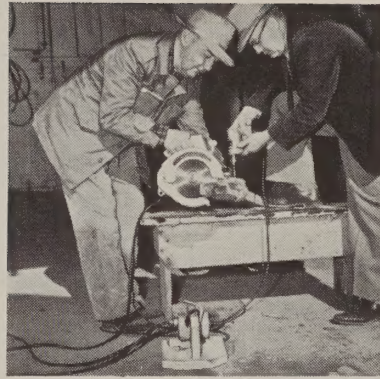


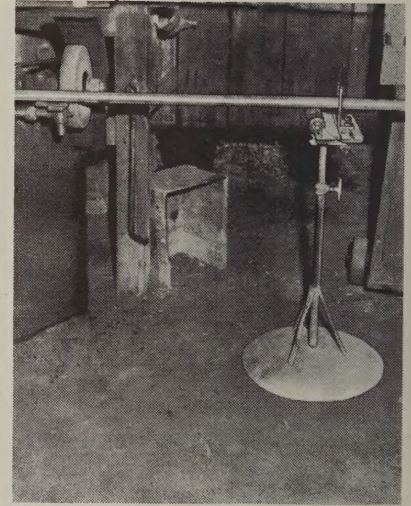
Photo: Gertrude E. McVickar

Plug-ins to spare on this portable unit. Mount two wall outlets back to back and run extension cable to switch box. B. S. Wright, Virginia.



Photo: Gertrude E. McVickar

Cut a chunk out of an oil can and you have an easy-to-carry paint bucket with a built-in brush rest. T. H. Dietsch, Duval Co., Florida.



This gadget holds up one end of equipment being repaired in shop. Made from disk blade, rubber roller, and adjustable uprights. Used by Bill Perry, Tillman County, Okla.

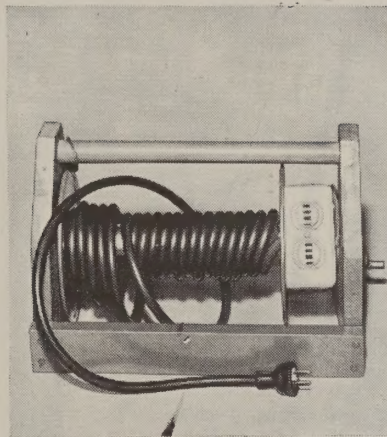


Photo: Tyler Studio

A slick rig for carrying extension cord. You mount the outlet plug on the reel; wind up the cord with the crank. W. A. Betz, Polk Co., Iowa.

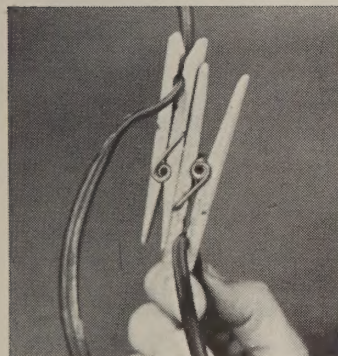


Photo: Glen F. Stillwell

No more tangled extension cord. Fasten two clothes pins together back to back with brads or screws and use them to take up or let out slack. Won't damage cords.

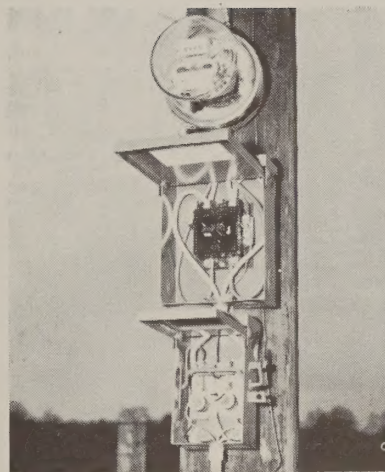


Photo: A. M. Wellach

Wire the pump through a separate fuse box (bottom) so it will run even though you pull the main disconnect switch in case of fire. Chester Hanna, Henry Co., Iowa.



An old milk pail handle makes it a lot easier to carry your portable electric motor from one job to another. H. W. Adams, Lee Co., Iowa.



Photo: L. H. Hauck

"It's comfortable, and the tray saves trotting back for tools," says mechanic Al Rohlfing, Howard Co., Mo. Top is old brake drum; stool rolls on casters.



Photo: A. M. Weltach

You can carry this light-weight shop seat with one hand. Dale Nau, Des Moines Co., Iowa, used an old mower seat, welded on strap-iron braces.



T. O. Wright, Tillman County, Okla., used an old disk, a piece of scrap iron, and an old implement seat to make this milking stool.



Photo: Cameron Hervey

Sit when you can, Ed Bernreuter says. Weld an old implement seat to a brake drum. Ed has several on his Washington Co., Ill., farm.

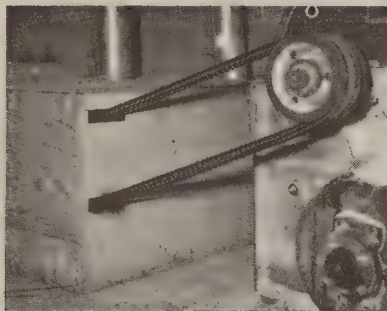


Photo: Gertrude E. McVickar

Box keeps feed dust out of hammer-mill's electric motor. Pipes to outside furnish air for cooling motor. Ben Hundley, Anne Arundel Co., Md.



Photo: A. M. Wettach

Rest your feet. Spring is from a junked car. Ralph Pisarik, Johnson Co., Iowa, welded a disk blade to one end and a seat to the other.



Cal Orr

Your saw won't bind on these saw-horses made from old well pipe by Marion McCreight, Lancaster Co., Neb. Welded plates brace the legs.



Photo: Wilbert Schaal

Holds up that outer end. Legs are adjustable; 4" rollers are cut from 1½" dowel rod, turn on loose nails. John Ludwig, Montgomery Co., Md.



A bucket with a nail hole in the bottom is a dandy place to keep a twine ball. Norman Albaugh, Iowa, cuts twine with old sickle section.

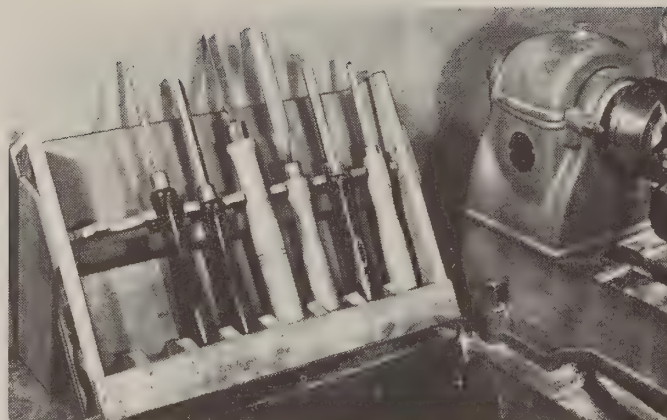


Photo: Elma Waltner

Simple but practical tool rack. Tilt a fruit crate toward the wall and nail in dividers. Chisels, screw drivers, wrenches, etc., are easy to see and grab. W. Waltner, Turner Co., S. Dak.



A little brightly colored paint saves losing tools dropped in the grass, says A. Fineman, Somerset County, N. J. It might also be handy for spotting tools that neighbors borrow.

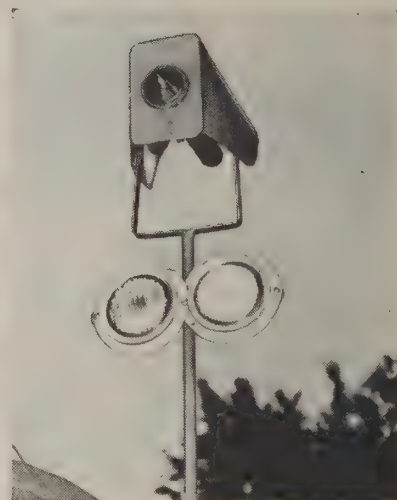


Photo: A. M. Wettach

Warn motorists when you trail implements after dark! Rig up a flash-light so that it shines through a red lens. Reflectors are extra insurance. Leonard Port, Linn Co., Iowa, can clamp the device to any implement.



Photo Charles L. Stratton

Bump this reflector and it usually swings instead of breaking. It's bolted to an old door hinge. Sam Fox, Middlesex Co., Mass., keeps it well-oiled so it will work easily.



Photo: A. M. Wettsch

Nails when and where you want them. You simply cut the corner off a gallon can (the kind that varnish comes in) and roll the sharp edges. Easy to fill and check nail sizes, and carry to the repair job. Bernard Graber, Jefferson Co., Iowa.



Photo: C. F. Marley

No more digging around in a bucket to find the right size nails. Old coffee cans nailed to a 2"x4" will keep them separate, easy to reach.



Photo: Marley Baer

Time-saving shop tray. When you find the screw you want, simply pour the others back into the can.



Photo: William Dugovich

Get a scissor-hold with the plier-like jaws, push down on the handles, and up come stakes or small posts. By Hiram DePuy, Pierce Co., Wash.

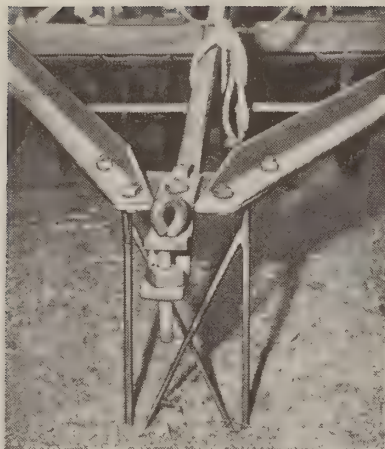


Photo: A. M. Wettach

An easy-to-make jack for your drill hitch. Bend wagon end-gate rods, weld them together. Eyes in rods let jack swing back when not in use.

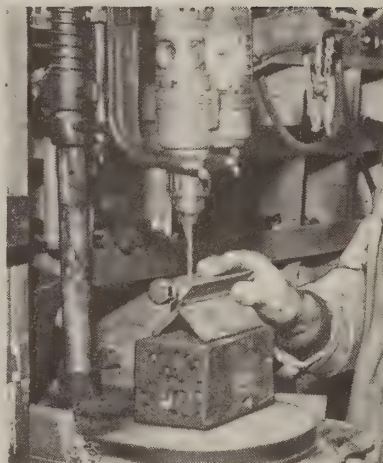


Photo: A. M. Wettach

This trough keeps bolts from twisting while you drill holes through them. Leslie Hickenbottom, Jefferson Co., Iowa, welds large and small angle irons together so device will handle almost any size rod or pipe.

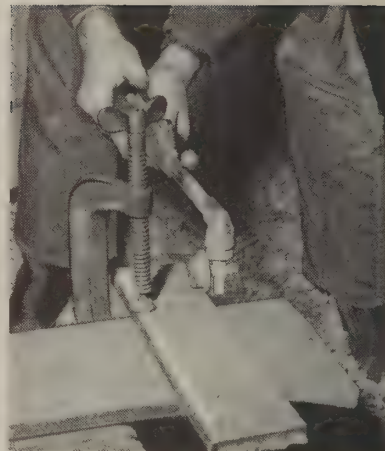


Photo: Howard Clapper

Cuts steel straight as an arrow. Fasten a flanged guide wheel to the torch with a collar and set screw. Roy George, Morrow Co., Ohio.

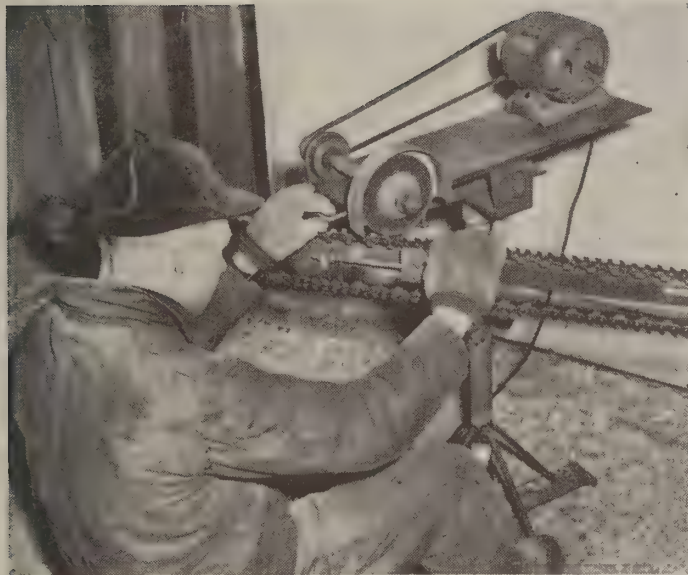


Photo: Howard Clapper

Sharpens a 3-foot chain saw in an hour! Lester George, Morrow Co., Ohio, mounts motor and grinder on a hinged platform; raises and lowers the grinding wheel with his left hand. Bracket that holds saw pivots to give proper cutting angle.

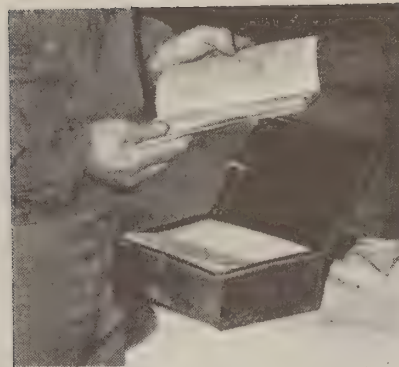


Photo: Arthur Edwards

"I keep my machinery instruction books in this box—never need to waste time looking for them," says Sterling Shaw, Caldwell Co., Mo.



Photo: Gertrude E. McVickar

No trusting to memory in this shop. A separate box for each implement keeps the hundreds of pins, keys, and spare parts within a moment's reach. Burdette Wright, Loudoun Co., Va.

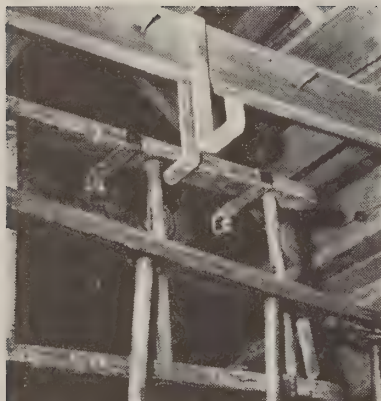


Photo: Kenneth R. Imig

Ladders are indoors and easy to get on these overhead cross-brace hangers. Joe Bauer, Iroquois Co., Ill., bent 1½-inch strap iron for hooks.

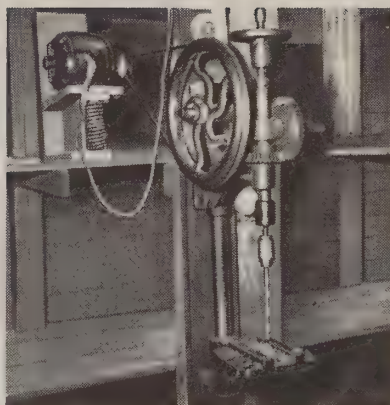


Photo: Gertrude McVickor

Cut a groove in your hand drill's fly-wheel, and you've got a pulley, says Ross Wyant, Lucas Co., Ohio. Spring under motor keeps belt tight.

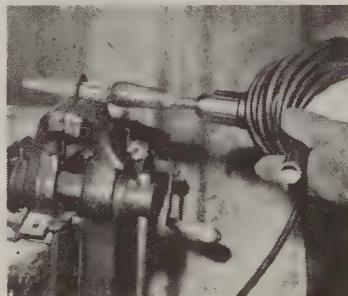
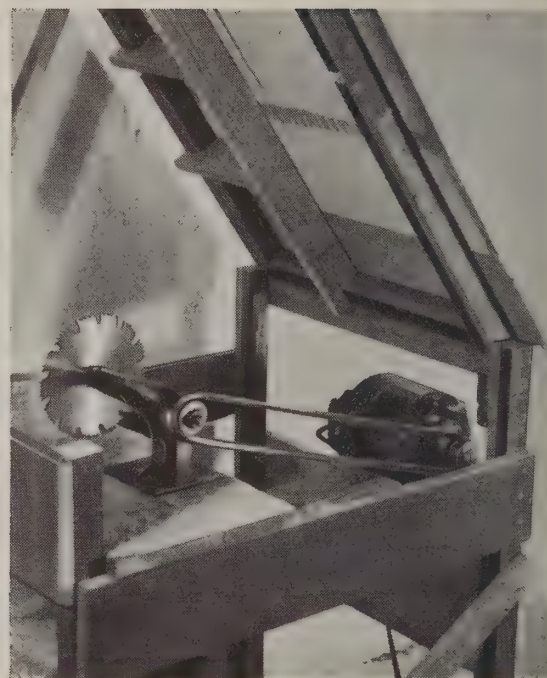


Photo: A. M. Welfach

Make a chuck from an old car-carpenter's brace so that you can use those old square-shanked and odd-sized bits and reamers in the electric drill. A. Hudachek, Iowa.



An old sewing machine head makes a handy circle saw. Just put a blade at one end; a pulley at the other. Top folds down so the saw fits in the slot.



Photo: Durell Davis

No sawdust to sweep up if you mount electric saw on a cut-down barrel. Hole at bottom is for cleaning out. C. E. Brannon, St. Clair Co., Ala.



Photo: Wilbert Scholl

Nothing fancy about this 3-legged stand, but it's always solid even though the shop floor isn't level. R. H. Matthiessen, Fauquier Co., Va.



Photo: L. H. Houck

Cut a chunk out of an old truck wheel and you have a safety shield with plenty of room to grind big pieces. Paul Higday, Boone Co., Mo.



Photo: A. E. Holden

From dust to sawdust. Take an old vacuum cleaner's motor, add a circular blade and a handle "Rips 1½" boards," says J. W. Ross, Ind.



Heat where you want it. Build a jacket around the oil drum heater, hook on blower and movable elbows, direct hot air on snowy, muddy machinery. Bohman-Powell Ranch, Ida.



Light. Spotlights focus on paths and driveways, and give you plenty of light for making evening repairs outside, or for servicing tractors and machinery. Carl Boyd, Washington.



Winter is the best time to make repairs, but no one likes to work in a cold building. Everett Albaugh, Polk Co., Iowa, made this wood-burning stove with his welder. It uses the same chimney as the forge, has built-in draft.

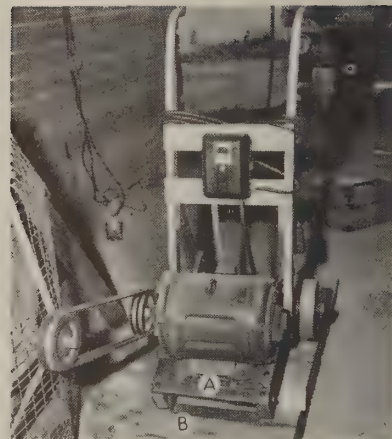


Photo: Cal Orr

This motor is easy to move from job to job. Sliding rod anchors the cart bottom (A) to stationary angle iron (B). Charley Fox, Custer Co., Neb.



Photo: Dick Elmore

There's plenty of room to work around this vise. Stand is heavy steel tube set in concrete; tray is welded on. Newt Johnson, Madera Co., Calif.



You always need more tools than you can carry, says Hugh Vademark, Latah Co., Idaho. He puts wheels under his tool cabinets; saves footwork.



Chuck Benn

Finding the right rivet, screw, nut, washer, or what-have-you is no job for Norman Albaugh, Polk Co., Iowa. They're easy to spot in these half-pint glass jars. He nails the lids to overhanging shelves, and just a few turns of the jar catches the threads and holds them there.

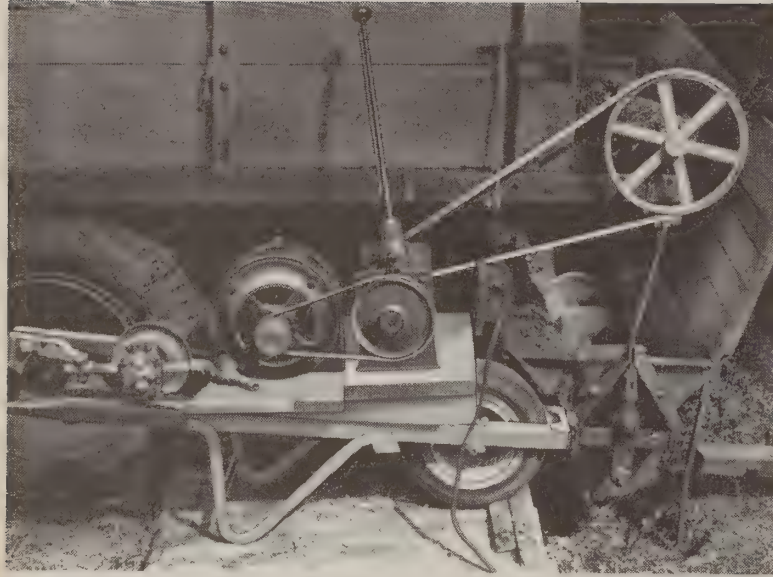


Photo: Russell S. Anderson

Couple your electric motor to an old car transmission, and mount both on a wheelbarrow. "You can unload wagons or run elevators at any one of three speeds," reports Fairview Farm, Hartford Co., Conn. Rig is easy to move from one job to another. Second pulley on motor runs the molasses pump at left when they put up grass silage with a preservative.

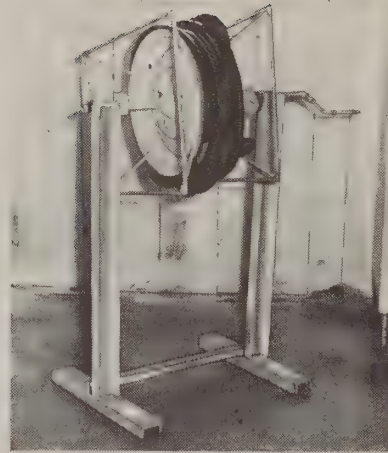


Photo: Walter J. Hunt

No more messy hose lying around for Clyde Wood, Montana farmer. He rigged up this welded stand, with a hub made from an old car wheel and rim. It holds 200 feet.

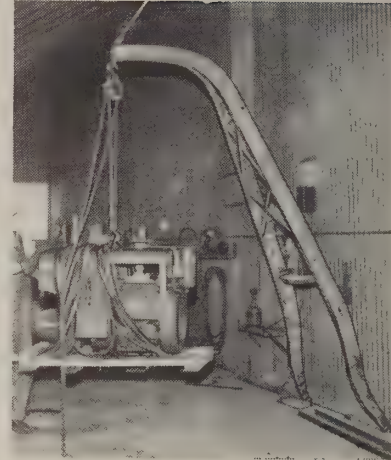


Photo: Richard C. Bell

If you don't have room for an overhead hoist, shape the rear end of an old car frame into a hook and mount it on hinges. Keep frame at proper angle, and you can lift up to 3 tons. Harlan B. Fairbanks, Wash.

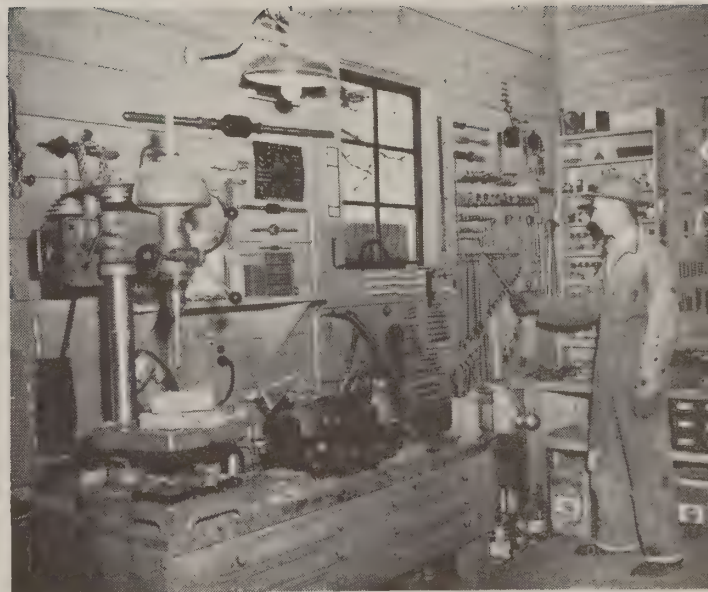


Photo: A. M. Wettach

Saves heavy lifting. Set an I-beam between the ceiling joists, put on a carrier for the block and tackle. Roy Seberg, Henry County, Iowa.



Use a hoist for heavy lifting. Herman Stubbers, Idaho, made his from an old hay fork carrier. To operate the ratchet gears, he uses these extended handles.



Let sunlight keep your shop dry. J. C. Naylor, Latah Co., Idaho, says windows also cool it in the summer. Tools hung on light-colored walls are easy to see and reach. Build drawers under benches for storage space.



Bill Plath, Cass County, N. D., mounted his pressure grease rig on this wheelbarrow-like frame. It has a single wheel in front. Plath uses the portable rig for combine, picker, and other machines.



Room. To run in the combine or a load of hay, swing up the flap for 14' clearance. The smaller 9' door opens and shuts easily, lets in most machinery. Frank Kambitsch, Ida.

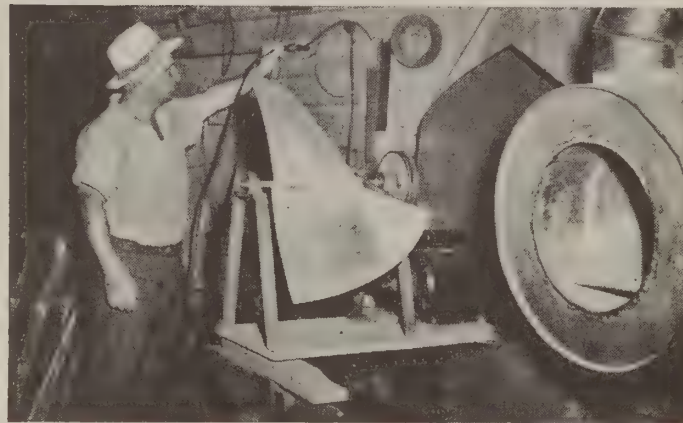


Photo: O. A. Fitzgerald

This slow-speed portable fan pulls heat from oil-barrel stove (right) to warm shop. Speed of wide aluminum blades (27" x 11") is reduced 1 to 6 by V-belt from $\frac{1}{2}$ hp. motor. Andrew Kern, Clearwater Co., Ida., moves fan near window in summer.



A. M. Welltoch

By coupling his electric motor to an old car transmission, Hilton Harris, Iowa, is able to run his grain elevator at almost any speed.

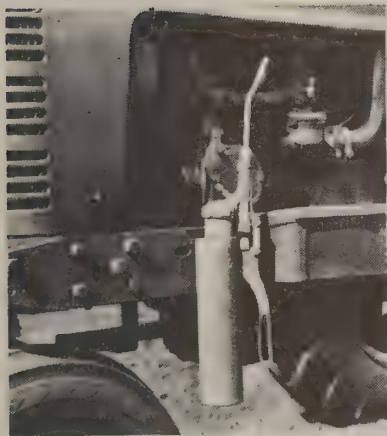


Photo: Greg Harmon

Grease gun won't jiggle out of this carrier. Put a bottom in a 3-inch pipe and bolt to the tractor frame.
By Donald Zahn, LaPorte Co., Ind.



Photo: A. M. Wettach

To make a solid stand for a table saw, weld two old cream separator bases together, bolt one to floor.
Ralph Pisarik, Johnson Co., Iowa.

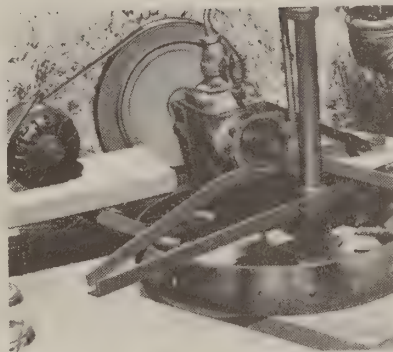


Photo: A. M. Wettach

A 3-speed pump jack! Max Harris, Louisa Co., Iowa, bolted the pump rod to the universal joint fitting of an old automobile transmission.



Photo: George Harrison

Another job for the old separator. 1/4-hp. motor drives cold stone set on hand-crank shaft. Bowl spigot drips water. Glen Fry, Pulaski Co., Ind.



Photo: J. P. Hancock

No dusty air inside the crib with this set-up. Herman Christiansen, Will Co., Ill., sets his grinder inside; puts the dust collector outside.



Photo: A. M. Weltach

This wagon converts from a box to a 7' x 14' rack in a jiffy. Four cross pieces under floor have loop iron ends to hold stakes on box sides. With sides off, loops support the frame of outside rack. Virgil Hickenbottom, Jefferson Co., Iowa.



Photo: A. C. Hull, Jr.

Tough brush gives way to this rugged rake. Put old car axles through a 6-inch pipe, weld them in place. When you pull lever, rake rolls forward one-half turn, dumps its load, and puts down other ends of axles.

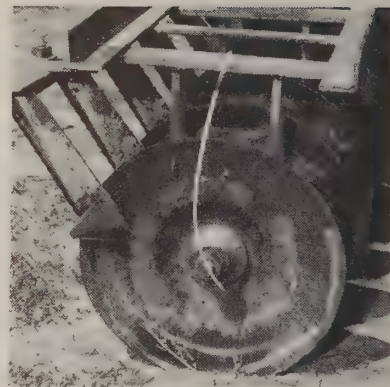


Photo: Jack B. Riggle

Disk cleaners that last. You can weld on old sickle blades when the regular cleaners start to wear back. Ralph Wesely, Lancaster Co., Neb.

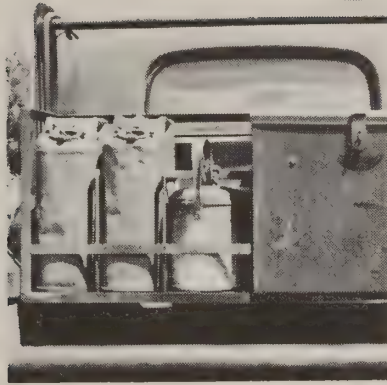


Photo: J. B. Mowbray

Gas cans can't tip over, tools and chains don't clutter up truck bed, with this angle-iron rack and box. E. D. Morgan, Butler Co., Ohio.

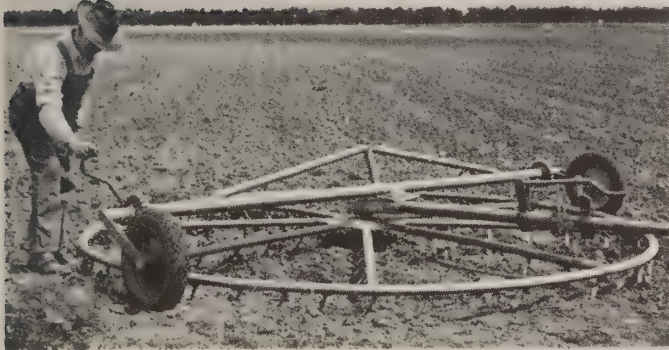


Photo: Bob Fowler

Slanted teeth give this circular harrow a rotary action that knocks off ridges and makes it self-cleaning. You can adjust for depth, crank the wheels down for road travel. Ernest Thompson makes several sizes in his Strathmore, Calif. shop.



Sail over the field at 15 miles an hour. "One hoeing knocked out 65% of the weeds, didn't hurt the week-old cotton," says Homer Rea, Texas Experiment Station. Tractor's hydraulic hitch raises trailer's tongue, which lowers the 6-wheel units. Rig pulls easy—lets you hoe when field is too wet to cultivate.



Photo: Kenneth R. Imig

Quick and easy to load, this disk-harrow transport has hooks and channel irons that slip under the axles. Braces on trailer's tongue steady the disk's hitch. "One man can load and hook it up anywhere," says A. F. Rabideau, Iroquois Co., Ill.



Photo: Al Goff

This widened-out corn cultivator takes eight 18-inch rows of soybeans. One 8-inch sweep runs between each pair of rows.

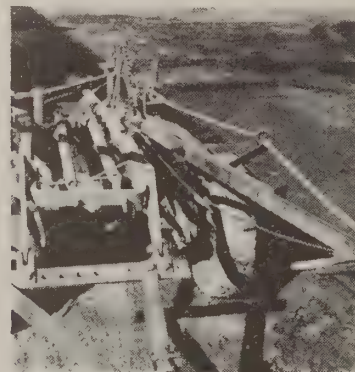


Photo C. F. Marley

Save your temper and your back. Weld on an eye-loop and bracket to keep the trip rope from wrapping around the plow lever. By John Uhrig, Illinois.



Photo: J. M. Scholl

For better stands, drop the legume seeds above a band of plant food. Kenneth Driftmier, Ringgold Co., Iowa, switched the legume box around to the back, welded lengths of flexible electrical conduit to the funnels, added a 2" x 6" for support. Bottom rod tilts conduits back, keeps dirt from plugging them.



Photo: University of Wisconsin

Slick way to renovate pasture. Put 18" sweeps and adapters on 16" plow beams. Wisconsin engineers use this rig, then cross-cultivate to kill the quack grass.



Photo: H. K. Wilson

This ground-hugging trailer makes it a lot easier to pick up hay bales. Mervin Donelson, Boone Co., Iowa, took old wagon wheels and sawed off the spokes. The rig rolls along on the hubs. You hook the bales without stepping off the rack.

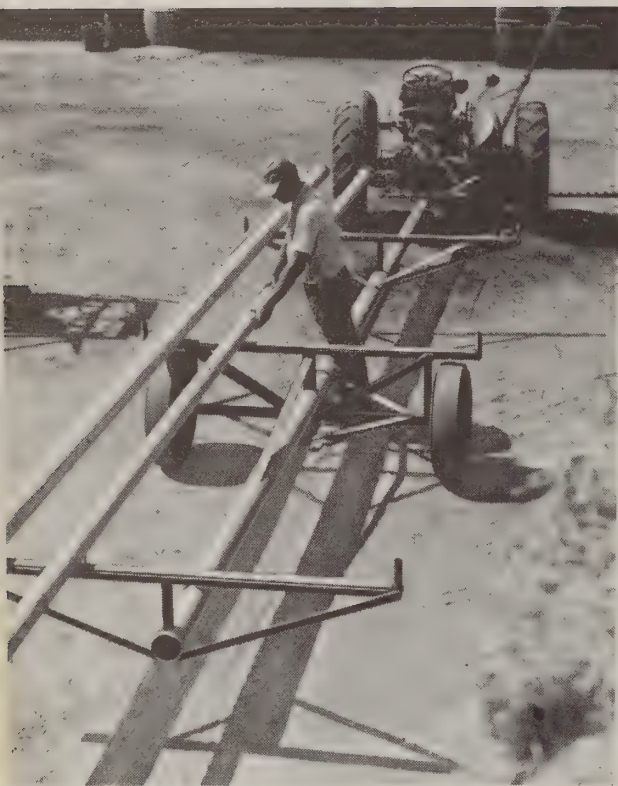


Photo: Hi Sibley

Saves time and steps. This trailer's steel "backbone" gives you extra reach, so that you can do all loading and unloading of irrigation pipe from one side. George Hammerschmidt, Riverside Co., Calif.



Photo: R. G. Fowler Jr.

Easy-to-make hitch for pulling a hoe or harrow while you plow. Bore holes in telescoping pipe for quick adjusting. By L. P. Haven, Oregon.



A. M. Wettach

Saves getting off the tractor when hooking up, says Clifford Cruzen, Mahaska Co., Iowa. (Cylinder under seat is car shock absorber.)



Fasten the hitching pin to an old axe handle so that you can unhook equipment without getting off the tractor. Richard Anderson, Indiana.



Photo: Bob Fowler

This elevator always builds a cone-shaped stack. Joe Urrutia, Madera Co., Calif., put an auger inside a 14" well casing, cut slots along the casing's underside. When hay reaches the stack's peak, it drops out. There's no bunching of light, chaffy stuff.

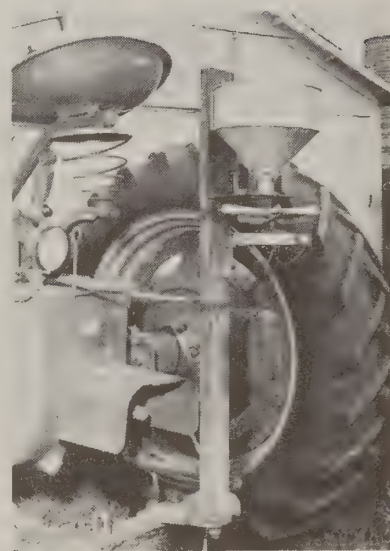


Photo: Al Goff

Seed legumes in corn with \$5 worth of parts: tractor funnel, seeding fan, and a car heater motor that runs off tail-light. August Turner, Minn.



Photo: David F. Costello

It's no trick to guide two drills when you've got a rubber-tired marker like this. Wheel pivots on a knuckle joint. By Ken Thayer, Larimer Co., Colo.



Photo: A. M. Wellach

You pull a slide instead of scooping out this wagon. Charles Cowen, Iowa, cut a 6" by 8" hole, and bolted on a welded frame for the slide.



Photo: Jack B. Riggle

Want to keep rust out of the seed drill without putting up a new building? Sam Bengston, Page Co., Iowa, made this snug-fitting "machine shed" from corrugated sheet metal and iron.



Photo: Neu-Art Studio

Here's what J. L. Thompson, Allen Co., Ohio, made from the gears of a combine's straw spreader and an old hand seeder. The rubber hose (see arrow) keeps vibration down.

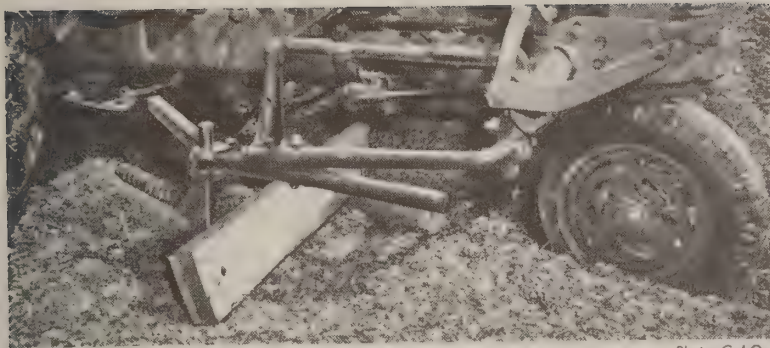


Photo: Cal Orr

If you pack silage with your tractor, slip on the cultivator and bolt a 2x10-inch plank to the shanks. The plank levels off the silage, and the tractor does a better job of packing. Otto Liebers, Lancaster Co., Neb., raises and lowers the plank with the cultivator's hydraulic lift.



Photo: R. E. Johnson

Strap an oil barrel to the underside of your truck, and you've got a handy place for tools and chains. Earl Widmere, Sandusky Co., Ohio.



Photo: W. C. Howell

Put coulters and sod-seeder "openers" on a cultivator with planter and fertilizer attachments, and you can seed new pasture in old sod. Mississippi State College engineers mount "openers" on a square steel bar that ties the gangs together.



Photo: A. M. Wettach

No more trying to gauge the hook-up spot from the pick-up cab. A hitch with sliding bar and spring-loaded pin makes coupling up easy.

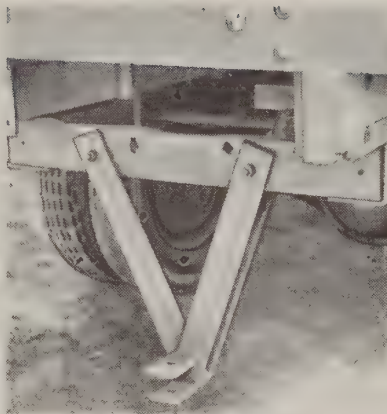


Photo: Charles L. Stratton

Make a drawbar like this, and you'll be able to tow heavy implements without damaging the truck frame. H. Jenkins, Rockingham Co., N. H.



Photo: Bradshaws

Slick rig for bucking hay. Cables connect the front-mounted sweep rake to the dump box. Tilting the box lifts the sweep for a quick trip to stack or barn. Elmer Pennygore, Michigan.



Using your grain elevator to elevate hay bales? This hay-rack-high, sheet iron apron guides bales in smoothly. R. Creelman, Des Moines Co., Iowa.



Photo: David W. McCollum

Old truck tires make dandy trailer fenders. David McCollum, Rockingham Co., N. C., bolts them on; says they never rattle, break, or rust!



To keep dust down on the road past the farm buildings, C. V. Mobberly, Washington County, Ohio, built this oiler. Business end is 2" pipe with $\frac{3}{8}$ " holes bored close together. Old crankcase oil does the dust settling.



Photo: Gertrude E. McVicker

Take an old pipe, a few pieces of strap iron, and rig up one side of the truck box so that it drops down. "Makes both loading and unloading a lot easier," says H. Laylond, Wyo.



Photo: Gordon, Black Star

Build a loading platform the same height as the truck bed. "Saves lots of lifting when you're hauling feed or fertilizer," says Lester Lane, Clinton Co., Ohio. You can store machinery (note disk) underneath.

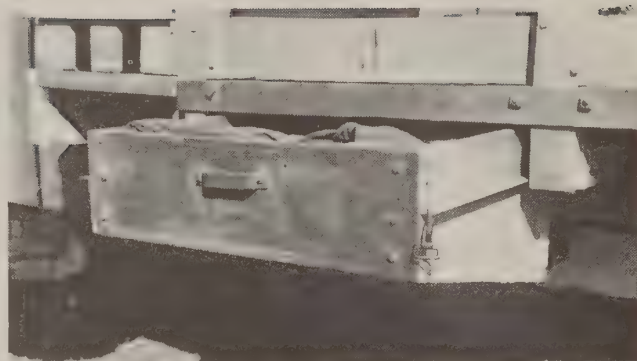


Photo: J. B. Mowbray

No more cluttering up the truck cab with tools, chains, and the tarp. C. A. Wilson, of Fayette Co., Ohio, carries them in a drawer built to fit neatly between the rack's cross braces.

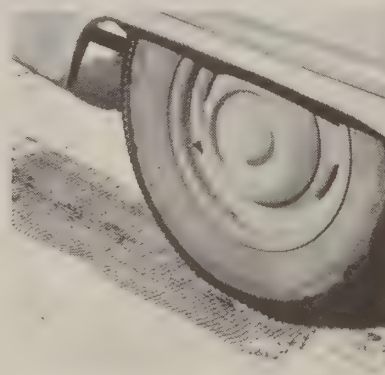


Photo: A. M. Weltach

Save tires and tempers. When it's too icy to back out from a sloping curb, use two hardware cloth strips. Melvin Talbott, Henry Co., Iowa.



Photo: A. M. Weltach

Unload feed from the tractor seat. Clifford Cruzen, Iowa, welded two augers together, eases feed into an old combine elevator for unloading.



Photo: Eleanor Gilman

You don't raise the hood or bump into grease when you use this crank-case oil warmer for easy winter starts. William Lincoln, Rutland Co., Vt., mounts a tin can and an old handle on a four-foot board. Pyrex lamp rests on rim of can.

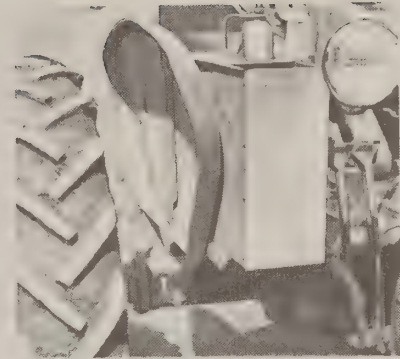


Photo: A. M. Wettach

This tractor tool box clamps to the axle; is out of the way yet easy to reach. Sliding cover keeps out rain. Elmer Denkman, Cedar Co., Iowa.

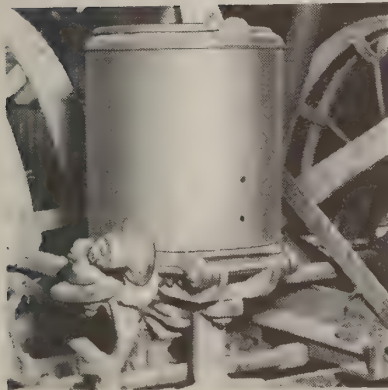


Photo L. H. Hauk

"Those small holes save me getting off the tractor to check how much corn is left in the planter boxes," says A. R. Widel, Cooper Co., Mo.



E. V. Reyner

The next time you have to tow your car, try putting an old tire in the hook-up. "The tire will stretch," says E. V. Reyner, Broadwater Co., Mont., "and there won't be any of those hard jerks when the driver ahead takes up the slack, or you happen to apply the brakes too suddenly."

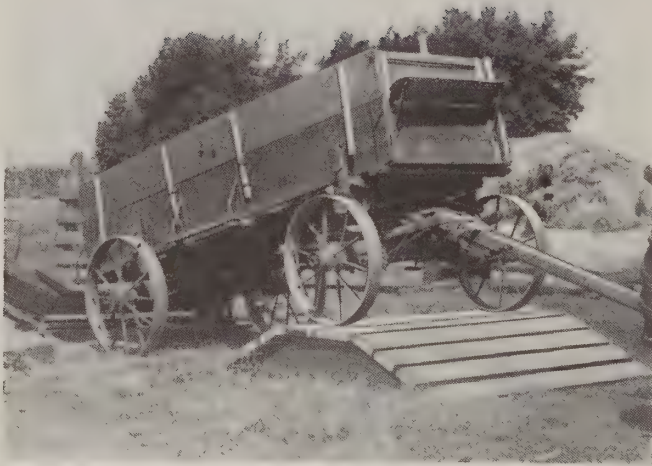


Photo: Norma Reeder

Nothing fancy about this hoist idea, but it saves a lot of scooping. Earl Reeder, Rock Co., Wis., used three 2x12's for the sills; made it sturdy enough to drive over it with the tractor or truck. You can move the hoist with the manure loader.

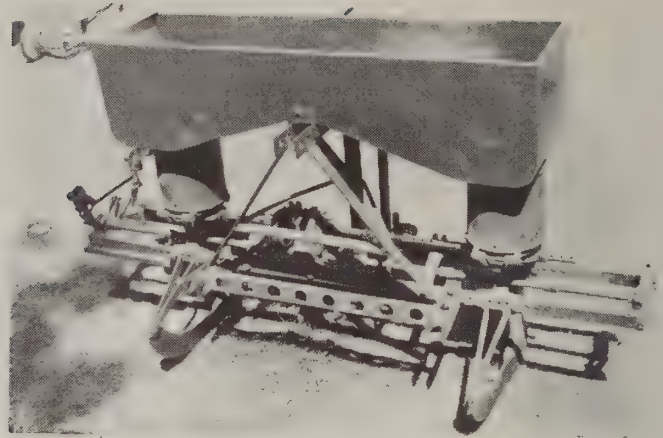


Photo: A. M. Wetlach

Cut down on refilling stops when you plant soybeans. Hopper has sides of 1" lumber; ends and bottom are sheet metal. Iron bracket supports weight. Ivan Trimby, Decatur Co., Iowa.

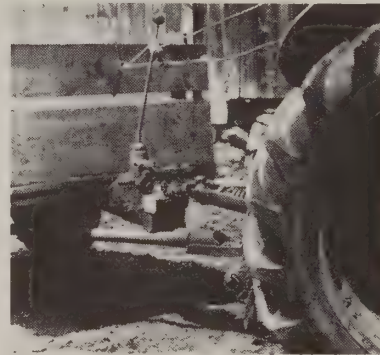


Photo: Wm. Gilman

Pull the cord, and trailer helps push in mud or snow. Axle, drive shaft, and gear shift are from old car. A. F. Thompson, Windsor Co., Vt.

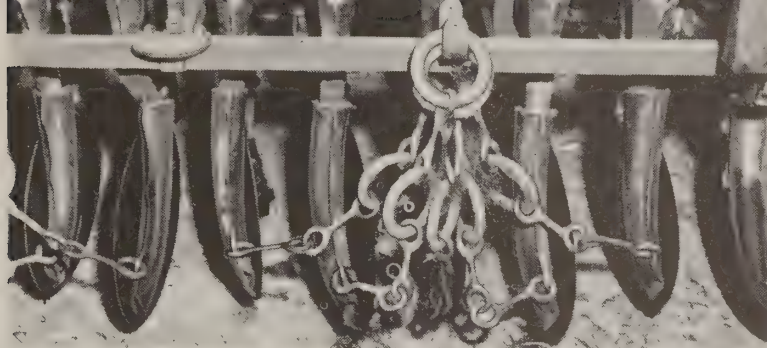


Photo: A. M. Wettach

Weld short clevises to the frame of your grain drill and hang up the covering chains when they aren't in use. "Hooks also keep the chains from bouncing up and damaging the grain spouts and disk blades during trips to and from the field," says Art Hudachek, Muscatine Co., Iowa.

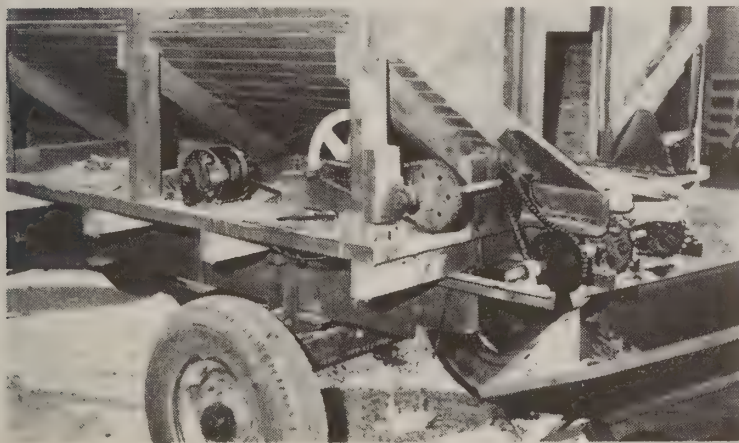


Photo: J. B. Mowbray

Plug in a cord to unload. Mount an old 1/4-hp. washing-machine motor on the wagon bed, gear it down with pulleys and sprockets, and slope floor towards drag chain. Willis Beck, Warren Co., Ohio.



Photo: Leon Boeck

A pull on the chain and the corn picker wagon is unhooked. "Saves getting off the tractor seat," says Leon Boeck, Faribault Co., Minn.

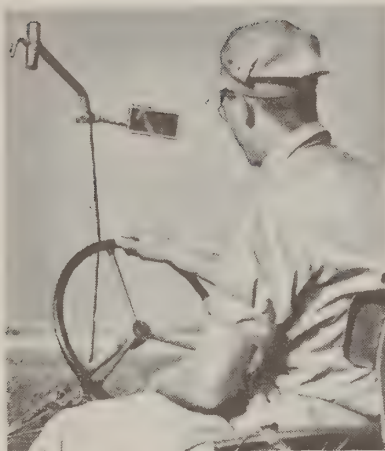


Photo: A. M. Weltach

Put a rear-view mirror on your tractor, and you can glance at implements without twisting your neck. Gordon Kerby, Van Buren Co., Iowa.



C. F. Marley

Two hinges and a piece of 2 by 4 hold this endgate in place. Don Wilson, Montgomery Co., Ill., says it's no trick to take out or put in.



Photo: C. E. Ball

Build this in two hours. After getting only a bushel of seed the first day out with a hand reaper, L. H. Burton, Washington Co., Ark., got disgusted. Next morning, he sharpened 1"x4"s, tacked on canvas, and stripped 10 bushels of seed before noon.

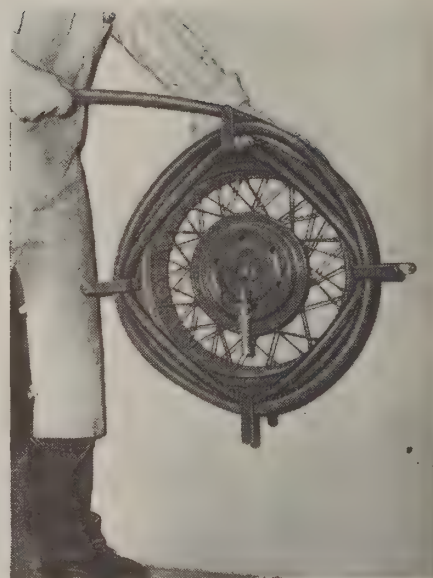


Photo: O. A. Fitzgerald

An old car wheel makes a dandy hose reel if you weld on half-inch iron prongs. Hose doesn't kink or twist when you turn the wheel to wind it up.

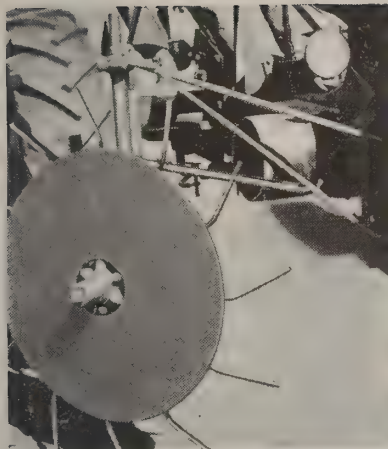


Photo: A. M. Wettach

This turner rolls hay or grain windrows just enough to dry them. Use an old cultivator wheel. Cut off the rim, bend spokes, weld on shield.



Photo: Dick Elmore

Smooths out the bumps. With a second axle, you can set the wheels in close. M. J. Schuller, Yakima Co., Wash., hauls over uneven ground, across furrows.



Photo: A. M. Wettach

Sliding collar lets one man couple up unloading wagons. After wagon is hooked to drawbar, Lloyd Merrick, Washington Co., Iowa, slides collar forward to connect power take-off shaft (shield removed) with shaft that runs unloading mechanism.

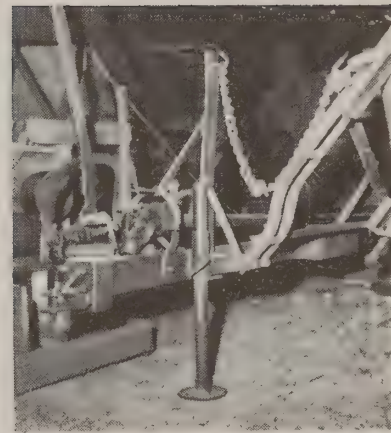


Photo: J. P. Hancock

Combine hitch jack. Weld a sleeve to the frame. Pipe slides inside; you tighten bolt, unhook, and drive away. Fay Manthei, Will Co., Ill.



Photo: Gertrude E. McVicker

Bunch the bales to speed up loading. You pile bales on a sled, then stick a crowbar in the ground to slide them off. Nail two 2x6's together to make the four runners. Bolt on two 2x12's as cross-pieces up front. M. W. Miller, Spotsylvania Co., Va.



Photo: A. M. Weltach

Slick rig for picking up hay bales. Cliff Feltman, Johnson Co., Iowa, bolts three 16' planks together; says he can haul 40 bales of hay or straw.



"These steps make climbing into the box as easy as getting into the cab," says J. Eastburn, Jasper Co., Ind. Steps hook into iron loops.



Photo: Kenneth R. Imig

Use your cultivator to work up the ground ahead of the corn planter. "Saves a disking, wipes out all tractor tracks, and leaves an excellent seed bed," says Walter Anderson, Illinois.



Photo: Herbert Pike

Another use for the fertilizer spreader: Len Deweese, Monona Co., Iowa, sets it for 1,000 pounds per acre, dumps in the dry molasses, and "top-dresses" each layer of silage as he fills. Spreader didn't work with ground corn—took too many trips.



Photo: Charles L. Stratton

Old lawn mower wheel holds up the outer end of cutter bar so that you can clip weeds just above clover. Paul Kimball, Middlesex Co., Mass.

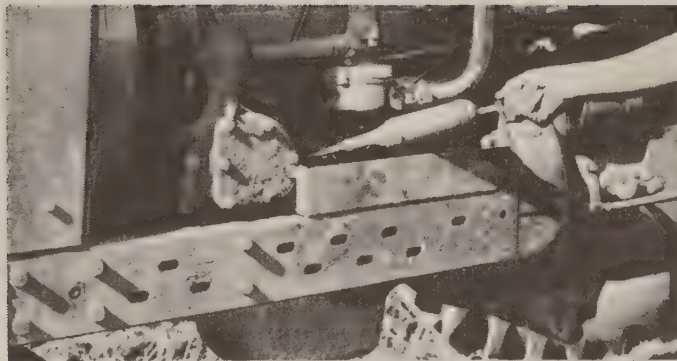


Photo: A. M. Wettoch

Need a tool box on your tractor? This one (made like a dust pan, with the open side toward the engine) is out of the way, yet easy to reach. On winter days, heat from the engine keeps the grease gun warm. Charles Friese, Washington Co., Iowa.

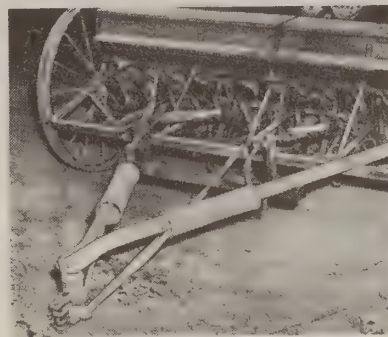


Photo: Clair M. Wolfe

There will be no more gouging of tractor tires from sharp turns on the Wirth Bros. farm in Oteo Co., Neb. They put a section of well casing on frames where wheels hit.



Photo: Kenneth R. Imig

Want to spread your soybean straw more evenly? Just bolt short pieces of 1" lumber to the blades of regular straw spreader so that they stick out about 12". Morris Fleming, Iroquois Co., Ill.



Photo: Harry Graves

"These plywood boards keep strong side winds from blowing the grain off the combine platform," say the Sitar Brothers, Ramsey Co., N. Dak.



Photo: Kenneth R. Imig

No running out of gas. When combine engine sputters, Morris Fleming, Iroquois Co., Ill., switches to emergency tank, refills next round.



Photo: John Krill

He speeds up spray-painting. Armin Garver of Mahoning Co., Ohio, puts a platform on his loader, uses lower level to carry paint container.



Photo: George R. Harrison

Save your back. Hook a pair of log tongs on the arms of the manure loader, and the tractor does the heavy lifting. Just the thing for hoisting building timbers, or working around a sawmill, say Edward and Robert Dolph, Marshall Co., Ind.

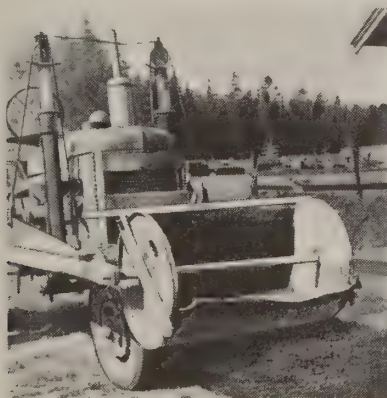


Photo: Richard C. Bell

Let the loader pour your concrete. Levi Cays, Clallam Co., Wash., cuts out a barrel and runs rod through end holes located 1" above center.



Photo: Kenneth R. Imig

No more twisting your neck to keep the grain drill lined up. Put a 2x4 up front and hang chains at both ends. Space chains so that drill is in position when the chain dangles over the track left by the drill wheel on the previous round. Kellerhals Bros., Iroquois Co., Ill.



Photo: Jack B. Riggle

Two PTO's (both need shields) so one tractor can run both wagon unloader and elevator or blower. C. Ingwerson, Lancaster Co., Neb.



Photo: M. S. Holman

Logs to lift? Let your tractor loader do it. M. S. Holman, Rockingham Co., N.H., put points on old automobile drive shafts and bolted them to the bucket. Works for hay and straw, too.

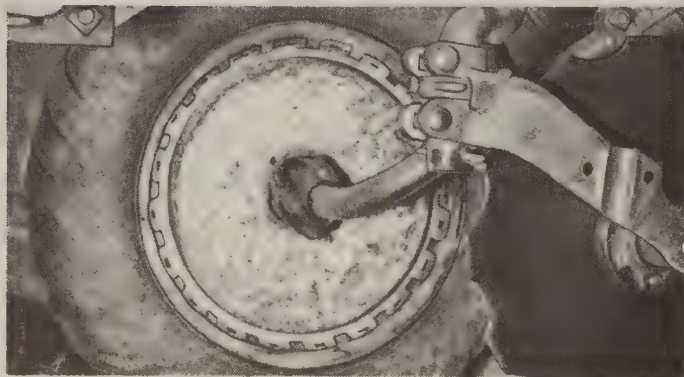


Photo: A. M. Weltach

This grease pail cover keeps the furrow wheel spokes from catching the corn stalks, and flipping them out on top of the plowed ground. Ralph Pisarik, Johnson Co., Iowa, cut a hole for the hub, and then just spot-welded the cover to the rim.

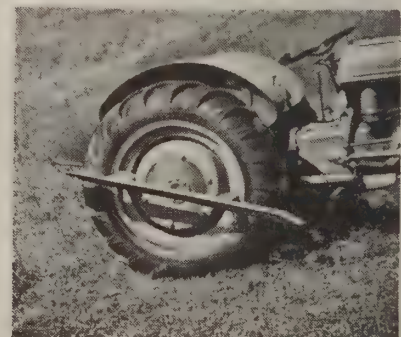


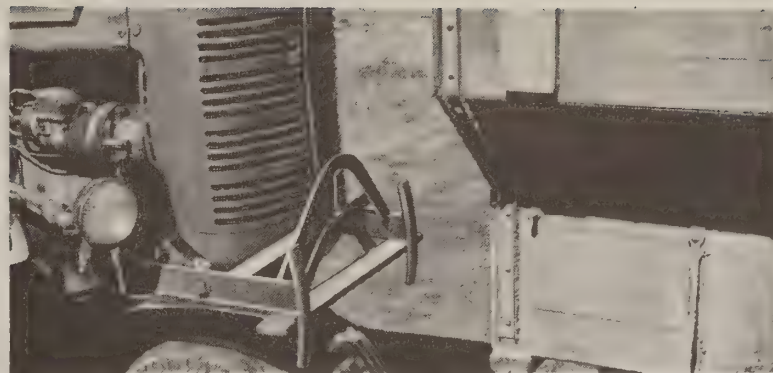
Photo: Fred E. Winch, Jr.

Make tree planting easier—dig the holes with a rig like this. Bolt a 5/8" angle iron to the wheel; set it to make holes 8 inches deep.



L. H. Houck

Angle irons and sharpened V's make a dandy brush and root cutter out of a manure loader, says Bert Hickman, Hickory Co., Mo.



C. F. Morley

For pushing loaded wagons into place, Charles Albaugh, Polk Co., Iowa, made this detachable tractor bumper out of scrap iron and wagon rims.



Photo: J. C. Allen & Son

Get plant food in every row. Just cut the bottoms out of a couple of old five-gallon buckets, wire on hardware cloth, and catch the lumps of fertilizer and pieces of sack before they plug up the hoppers, suggests Daniel Friedly, Van Wert Co., Ohio.



Photo: B. G. Perkins

Plant straighter rows. Put a length of No. 9 wire up front to guide on. Elpine Farm, Whiteside County, Ill.



Photo: J. B. Mowbray

Make a guard and you won't have to worry about smashing in the grill and radiator when you use the front-end hitch to back in wagons. Uprights are $\frac{1}{4}$ -inch steel. Jim Georges, Clinton Co., Ohio.



Photo: A. M. Wellach

Let your tractor's hydraulic system lift the header. Bolt manure loader cylinder (A) to frame. Run a cable from header through pulley to other side (arrow). Hilton Harris, Iowa.



Carrying a fire extinguisher on a tractor is good business. This one on the International Harvester farm, Du Page County, Ill., is well placed, out of the way of mounted implements, yet easy to get at. Dale Hamilton inspects it.

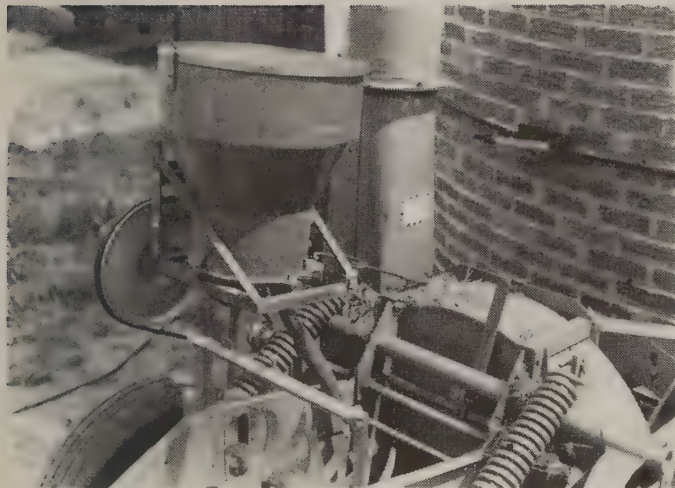


Photo: John Turrel

This corn planter fertilizer attachment meters out the new sodium metabisulfite preservative. It pivots out of the way when you swing the hopper up. Clyde Moore and Carl Cooper, Butler Co., Pa., run the V-belt off an extended shaft on blower.



Photo: A. M. Wettach

Bolt a clevis to the tractor frame during haying. "No driving on the rope: you can see the fork trip, too," says Paul Matheney, Iowa.

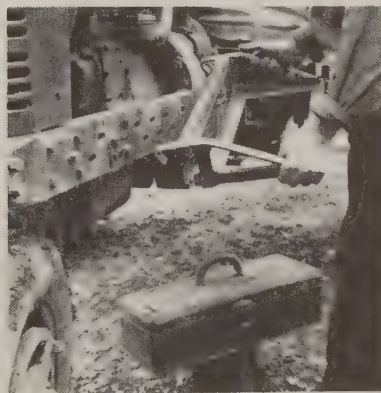


Photo: C. F. Marley

Just hook this rack on the tractor frame and take the whole kit along when you need tools in the field. Warren Bost, Montgomery Co., Ill.

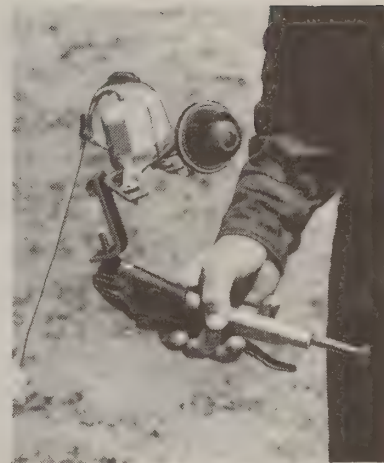


Photo: A. M. Wettach

Make a swinging tail light for your tractor. Take a car's electric windshield wiper motor and bolt a red parking light to wiper arm. Attach device to wrench so you can clamp it to implements. Keith Elwick, Ia.



Photo: Hi Sibley

Slickest way we've seen to cross a black-top highway with track-laying tractors. Edmond Nichols, Riverside Co., Calif., uses old auto tires.



Photo: A. M. Wettach

To save knuckles, weld a water faucet handle on any out-of-the-way set screws that are tough to keep a wrench on. Clifford Cruzen, Iowa.



This simple step makes it easier to look into (and fill) the tractor's fuel tank. Marvin Hari, Iroquois Co., Ill., uses a piece of $\frac{3}{4}$ " rod.



Photo: A. M. Wettach

Flag warns motorists. Guy Coon, Iowa, welds same-size bolt to all implements, then screws on standard.

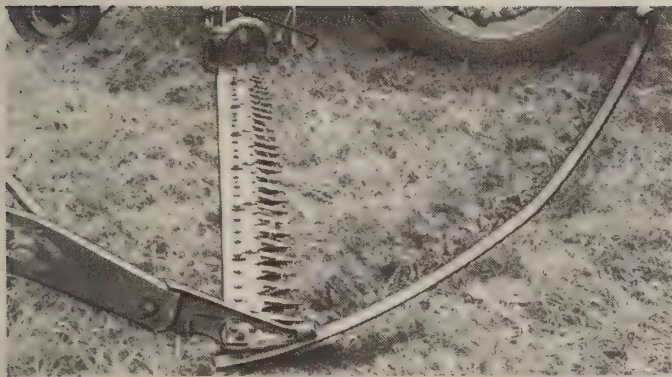


Photo: Dave Ryker

Old car spring rides tangled, viney crops and weeds down into sickle; leaves a clean cut, and lets swath board work better. Spring bolts to outer shoe. Leonard Wyatt, McClain Co., Okla.



Unhooking implements is easy when the pins have handles like these. Wilbur Sater, Iowa, bends iron rods into ovals, welds them to the pins.



Photo: Kenneth R. Imig

Hitch your drag harrow higher so trash can't pile up in front of the sections. Cables connect the upright bar to the axles. M. Fleming, Illinois.

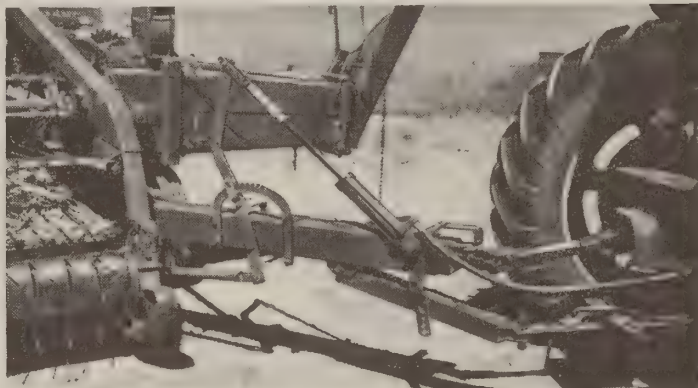


Photo: A. M. Wellach

No more stopping to raise or lower this pick-up baler. Hydraulic cylinder does the hand-levering for Keith McAllister, Henry Co., Iowa.



Photo: C. F. Marley

Fasten cultivator levelers or scratchers to applicator's chisels. "Just the thing for smoothing the furrows and sealing the anhydrous ammonia in the soil," reports Don Edgecombe, Macon Co., Ill.



Photo: J. H. Stoby

Hitch up from the tractor seat. Hydraulic draw-bar lifts hook to eye. Spring-loaded plunger closes hitch. Xura Smith, Cattaraugus Co., N. Y.



Photo: Dick Braun

The neighbors looked twice when they saw this. John Raber, Elkhart Co., Ind., takes off the front wheels, puts two I-beams underneath, sets on a sheller and tank, and pulls this tractor backwards behind his corn picker. He puts it in gear in mud.



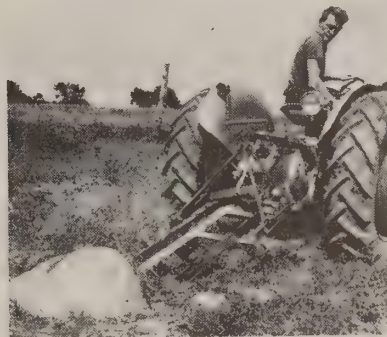
Photo: Harry A. Graves

For filling gas tanks in the field, mount a tank on top of the old pick-up cab. Gravity does the work—saves climbing up on tractor with 5-gallon can. Spencer Bobb, Stark Co., N. Dak.

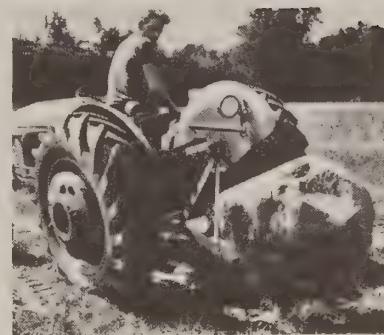


Photos: Roy Holding

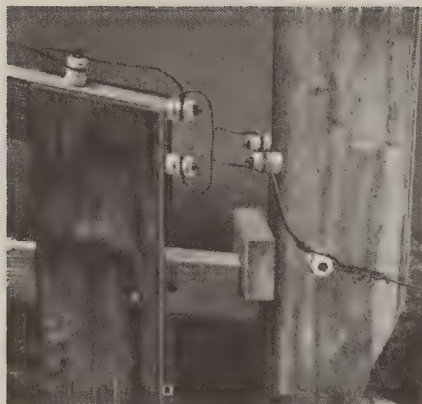
Rack cost \$11 to make; hooks on the hydraulic system in a few minutes. 40" prongs keep tractor from tipping back. To loosen a rock, Ed Rumsey, Kalamazoo Co., Mich. . . .



. . . wedges the pointed prongs underneath, then works the rack up and down until he can drive it all the way under the rock in reverse gear. Then he raises rack, and . . .



. . . drives off—doesn't leave any drag marks, the way a stone boat does. Rumsey's rack also hauls milk cans and feed, pulls fence posts, and jacks up the car for tire changes.



John P. Miller

Here's how to get around gates with your electric fence. The two loops just touch when the gate is shut; separate and break the circuit when it's opened. Made by D. Stroud, Mason Co., Wash.

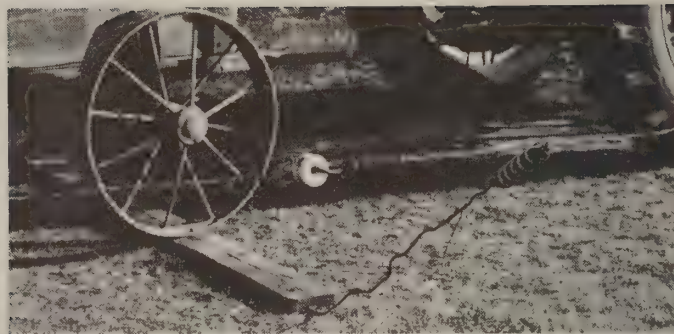


Photo: C. F. Marley

Quick, easy way to run a hot wire across the lane. Just staple an insulated wire to the underside of a 2-inch piece of lumber. Even steel wheels can't hurt it. Slows down speedsters, too.



Photo: Jack Curtis

A good way to take electric fence around a corner. "Those clevises keep the insulators from cracking," says Ray Morris, Finney Co., Kan.



Photo: Lou Facto

Drive two steel posts a minute with a dump truck. Close one end of 2" pipe, weld on handle and arm to slip under truck bed. Ankeny, Iowa, Experimental Farm.



Photo: Walter J. Hunt

For movable electric fence around the feed lot, pour concrete inside old tire casings, and set in posts. W. A. Schultz, Nicollet Co., Minn.



Photo: Charles W. White

Glass fruit jars turned over iron stakes are good electric fence insulators, says Marion Russell, of Delaware Co., Ind. He slips a piece of wire around the neck of each jar and fastens it to the tightly-stretched barbed strand.



Photo: A. M. Wettach

Needing electric fence posts? L. J. Denmire, Lee Co., Iowa, uses $\frac{1}{2}$ " iron rod, welds on strap iron arms, fastens insulators with stove bolts.



Photo: Dick Elmore

Run the electric fence wire over top of gate. Slick way to take current across roads to other pastures, too. Jim G. Bardin, Monterey Co., Calif



Photo: Charles E. Ball

Just snap this electric gate open or shut—latch is a broom-hanger. Hinges are insulated, so gate is not "hot" when open. L. H. Burton, Ark.

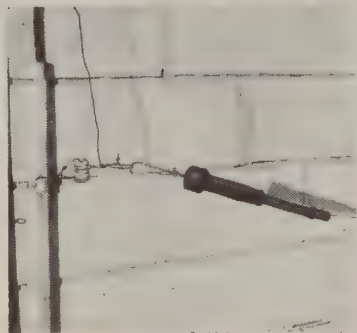


Photo: Walter J. Hunt

Gate for electric fence. Run wire through old teat cup liner, splice on a hook, and wrap in a lump of twine to hold the liner in place. C. E. Crossman, Minn.



Photo: C. F. Marley

Hold sheep with electric fence? Just hang shiny metal every 20 feet. Sheep sniff, learn to keep back, says Virgil Brown, Montgomery Co., Ill.



Photo: Walter J. Hunt

A slick electric fence post. Take a 6', $\frac{3}{8}$ " rod, bend in a pig-tail, and slip on rubber hose. Put your weight on the step and down it goes.



Photo: Frank J. Shideler

Chains on tractor-powered rig peel 8' posts in 2 minutes. Lever (left) adjusts log rack; cover (above) protects operator. Lynn Matheson, Colo.



Iron plates on the squeeze chute will keep cattle from poking their legs through. They protect workers and cattle on Dudinsky Brothers farm in Kittitas County, Wash.

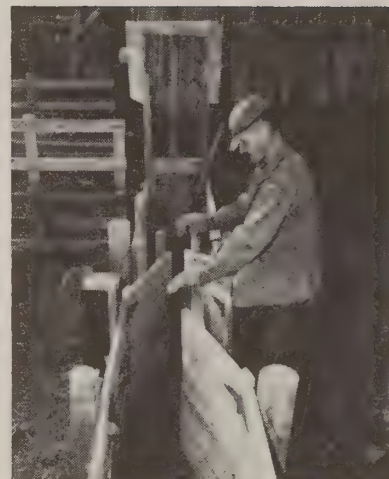


Photo: Phil J. Patterson

Allyn Tedmon can separate sheep into any of five pens with no help. From one spot, the Coloradoan controls the drop gate and the four chute gates. Easier on sheep, too.



Photo: Carl Hancock

Especially handy for sorting is this gate that swings from either end. C. E. Mabry, Arkansas Experiment Station, shows how pivot pins work.



Photo: Kenneth R. Imig

Run the water hose through a piece of 2" pipe, so you can drive through the gate without damaging the hose. Russell Perkinson, Iroquois Co., Ill.



Photo: Roy Anderson

One man can sort lambs about as fast as they run down this 18-inch lane. Lambs see daylight ahead—head for it. Grover Webb, Illinois.



A mechanical pig sorter, and believe us, it works. Sows go over the 16" platform; pigs duck underneath. In 30 seconds, the sows and pigs are apart.



Photo: R. G. Fowler Jr.

Hang doors on casters. Sliding doors open easier when the litter piles up; also take less space. Brownell Poultry Farm, Multnomah Co., Oregon.



Photo: Stirling Kyd

Those upright pipes in this gate are movable. Space them out as shown, and use the gate for creep-feeding calves. Space the six upright pipes evenly, tighten the set screws in the collars, and it's an ordinary gate. Joe O'Bryan, Bourbon Co., Kan.



Small gates for hogs only. Easy to make, they save wear and tear on big gates when you shut other stock in. R. C. Burke, Kendall Co., Ill.



Hogs on L. F. Randolph's farm in Fulton County, Ill., go from pasture to feed lot through old wagon wheel rims. Horses and cattle can't get through, but a person can—far easier than by climbing the fence.



Photo: David E. Ryker

Put a frame between gate and gate-post. "Gate will swing completely around to the fence in either direction," says Cliff Dolton, Okla.



Photo: A. M. Wellach

Here's an easy-to-make gate latch. The circular slotted iron once anchored a lever on an old gang plow. Max Johnson, Van Buren Co., Iowa.



Photo: Chuck Benn

"I use this handy tool to get the loose dirt out when I'm digging post holes in dry, crumbly soil," says William Curvin, Boone Co., Iowa.



Gates open easily, make solid pen when shut. They butt against angle iron and flat metal piece bolted to post. Wire holds one, L-rods slipped through post hold others.

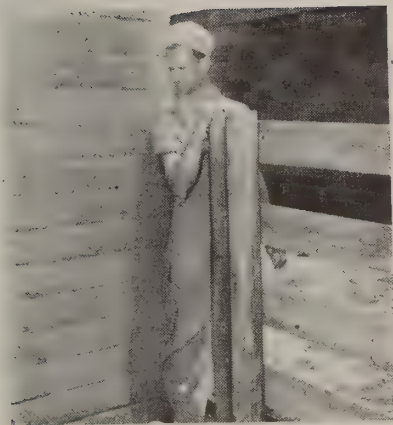


Photo: Jack B. Riggie

Set the posts 16 inches away from buildings, and you can slip in and out of the cattle lot. Will keep you thin, too! Hershel Flowers, Neb.



Photo: N. R. Clizer

Need a gate fastener? Cut a notch about 2 inches deep in an old strap hinge with a drill, chisel, and grinder. Perry Frame, Greene Co., Mo.



A. M. Wettach

Livestock never open this feed-lot gate on the Harold Robb farm in Henry Co., Iowa. But even the youngsters can swing aside the wooden block and lift the hook.

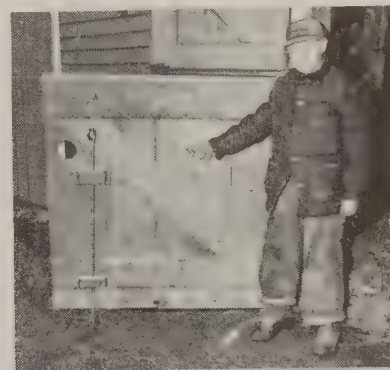


Photo: Kenneth R. Imig

Release rope, and sliding rod drops to the ground to hold door open. Makes it easier to drive in livestock. Morris Fleming, Iroquois Co., Ill.



Photo: Ralph L. Ricketts

No worry about this gate swinging shut unexpectedly. Drive a pipe into the ground, bend a hook out of scrap. James Hancock, Mo.



Photo: A. M. Wettach

Two gates in one. Main frame is 10 feet long, with a 6-foot section that extends out to 14 feet, when Howard McCleery, Washington Co., Iowa, wants to close off the loafing barn. Section telescopes to make a 10-foot gate for the milking room alley.



No more struggling with wire gates if you have this simple tightener. Slant top of post so closed gate pulls down on hinge, as shown by Fred Hammer, Teller County, Colo.



Photo: Phil J. Patterson

Open the gate with your foot when your hands are full. Simply weld latch pin to a spring-loaded rod. Kenneth Osborn, Larimer Co., Colo.



Photo: A. M. Weltach

This loafing barn gate never drags in the manure. Harry Dresser, Lee Co., Iowa, sets it on the top pair of hooks when the manure piles up.

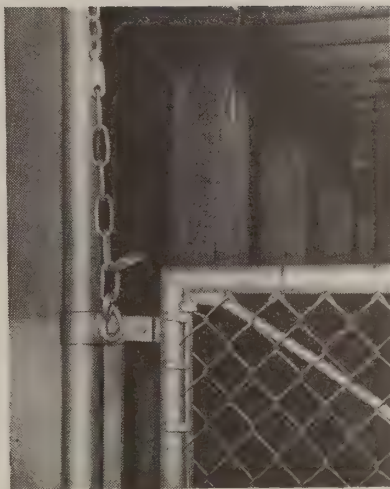


Photo: Cliff Allen

This home-made gate is raised or lowered to keep it above manure level in the Bob Bacon pen barn, Knox Co., Tenn. Gate swings on collars around the upright post; chain regulates the height of the gate on the post.



Photo: A. M. Weltach

No more cracked insulators when you move electric fence. Heat and straighten a small pinch bar, weld on a pivot. Reginald Mark, Iowa.



Photo: A. M. Weltach

This yard gate is always above the manure and snow. Clifford Cruzen, Mahaska Co., Iowa, loosens the nut and moves up the sliding collar.

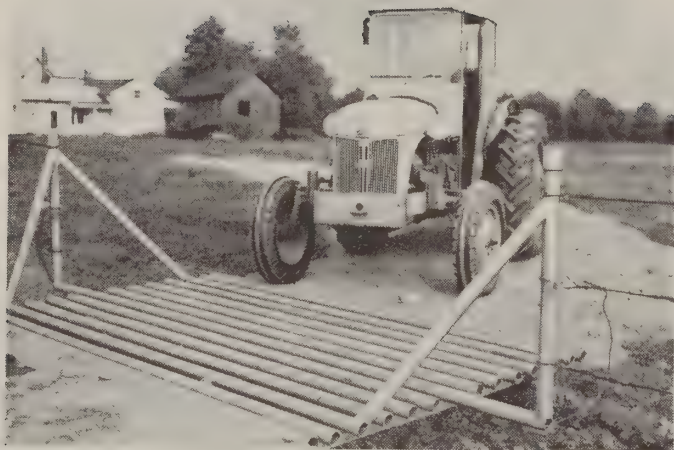


Photo: J. H. Staby

No gate-post gaps or fence sag here. Uprights and braces are two-inch pipe welded directly to the cattle guard. Insulated connection for center electric wire runs through the long pipe.



Photo: A. M. Wettach

No need to dig a pit for this top-of-the-ground cattle guard. It rests on three 4x6's, placed on edge. Harold Ahrens, Washington Co., Iowa, says the guard is ideal for temporary fences.

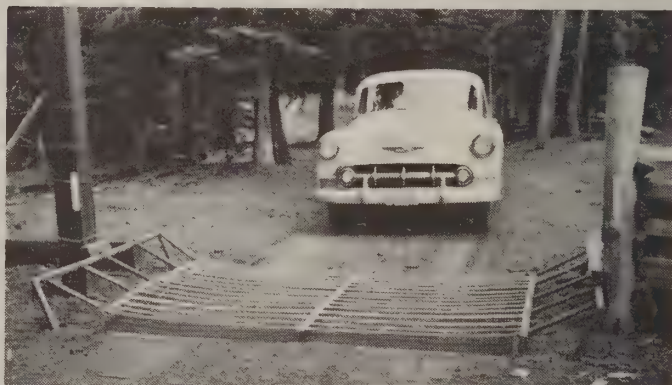


Photo: David F. Costello

No pit to dig. Set this "bed-springs", cattle guard in place, and it's ready to use. 12-inch springs hold up steel slats, anchor chains reduce bounce. Wallowa National Forest, Ore.



Photo: John Staby

Sharpens fence posts in a hurry. Clamps keep the post from turning while you push it into tractor-driven "pencil sharpener," made by engineers at Cornell University, Ithaca, N. Y.



Photo: A. M. Wettach

Weld handles on your post-driver.
"Gives you a better grip," says
Art Hudachek, Muscatine Co., Iowa.

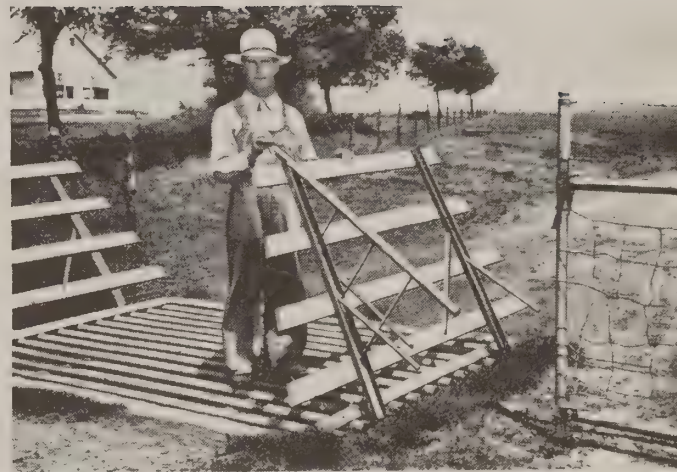


Photo: Roderick Turnbull

It's easy to get wide machines through this wire gate.
The rail at this end of the cattle guard, which serves as
the gate post, is hinged on pins—can be tipped back
or removed entirely. F. A. Babler, St. Clair Co., Mo.



Photo: Al Goff

Load from barn or outside ramp with this double-duty set-up. Concrete retaining wall and platform extending out from barn are both truck-bed height. Charles Winzer, Jackson Co., Minn.



Even in winter when the sliding door is closed, this cellar sash means plenty of light in the farm shop of H. R. Bryant, Louisa County, Iowa.

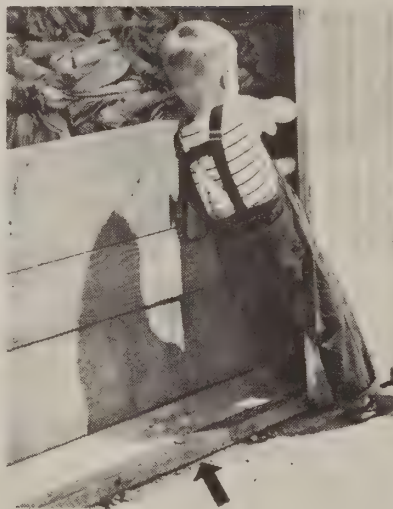


Photo: A. M. Wettach

These alley doors always fit tight. Angle iron keeps implements from chipping off the concrete, explains J. J. Fitzpatrick, Henry Co., Iowa.



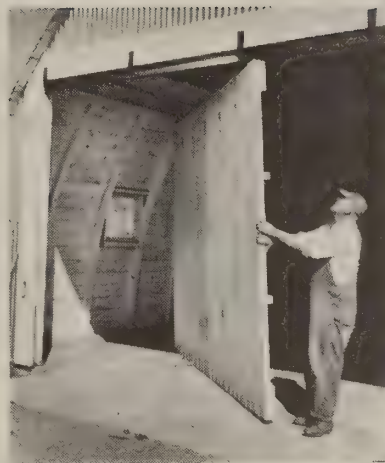
Photo: Al Goff

Hinge hay mangers at the bottom, hook chains at top, and you can adjust or draw 'em up out of the way. A. L. Birch, Shelby Co., Ky.



Photo: Eleanor Gilman

This concrete apron speeds up silo filling, because the blower-tender can roll away the empty trailers. Pierce Brothers, Sullivan Co., N. H.



You can have a sliding door, even if you don't have room for an extended track. Charlie Hoover, Jackson Co., Ore. mounted this one on two tracks set at right angles. Door glides into building against wall.



Photo: Bob Kull

Eaves on open side of shed are 4½ feet high. Other sides are draft-tight. Calves get lots of sunlight and exercise in these outside pens.



A. M. Wettach

Wind can wreck a sliding door, but these two are safe. Stops, made out of flat iron by Ed Bentzinger, Lee Co., Iowa, hold them in place.



Photo: A. M. Wettach

Easy way to keep chickens out of the barn. "Put woven wire above the doors," says Ed Holub, Iowa.

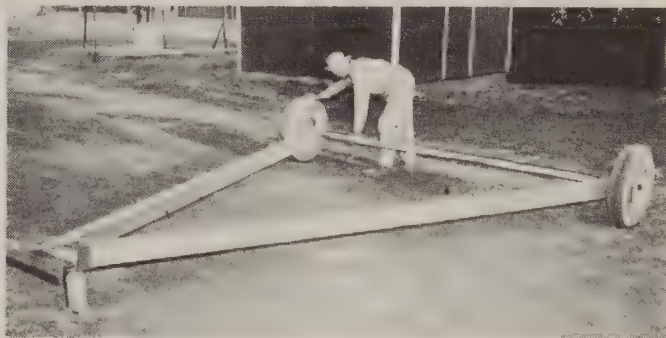


Photo: A. M. Wettach

Make road travel and field moves easier on portable sheds, feeders, bins. Axle is 10' of 2½" pipe with 5' lengths of 2¼" pipe telescoping into the ends. Spindles are welded on; beams are 4"x6"s, 14' long. Sam Miller, Johnson Co., Iowa.



Photo: C. F. Marley

Here's how Ray Fincham, Iowa, lets stock into either of adjoining lots. He fastens gate to the sliding door, controls opening with bar and bolt.

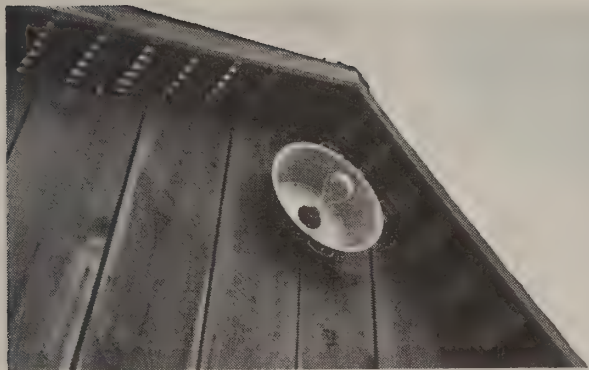


Photo: C. F. Marley

At last—a use for the old dish-pan. C. J. Kimbro, Illinois.



Vernon Alexander, Daviess County, Mo., doesn't waste time hunting a board or 2x4. His lumber shed, made from posts, 2x6's, and with a tin roof, keeps pieces dry and in shape.



Photo: Dick Elmore

This sliding door shuts by itself. Track slopes, but the outer hanger is set high to keep door on the level. Louis Payen, Sacramento Co., Calif.



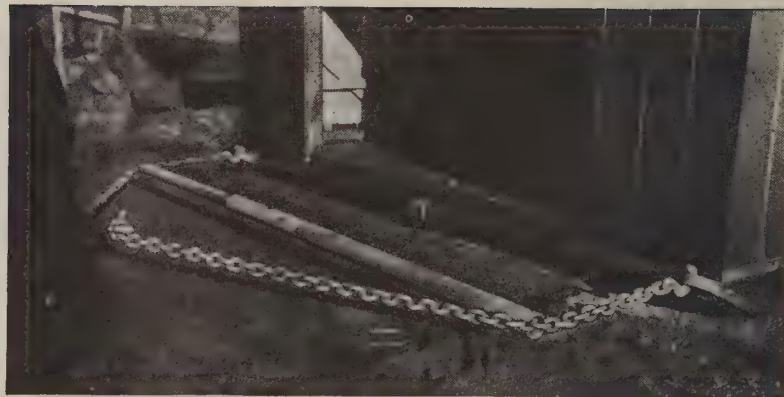
Photo: A. M. Weltach

Remember how you hunted for those crib-door boards last fall? Build a rack like this alongside the door so that you'll have a place to put them when you take out the grain. They're almost sure to get used in some patching job if left lying around. John Todd, Des Moines Co., Iowa.



Photo: Herbert Pike

"We sweep up enough spilled grain each year to almost pay for this 8-by-14-foot slab of 6-inch concrete," says Herbert Pike, Monona Co., Iowa.



This chain spreader (6-ft. length of 2-in. pipe telescoped into 2½-in. pipe) evens pull on runners in moving hog houses and feeders around the Herbert Pike farm, Monona County, Ia. It adjusts up to 12 ft. wide.

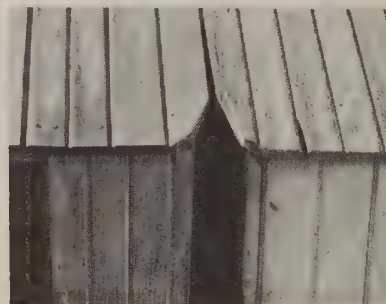


Photo: A. M. Wettach

Round off corners, and you won't splinter off end boards when you line up portable hog-houses with the tractor. Ray Creelman, Iowa.



Photo: A. M. Wettach

Leslie Farr, Henry Co., Iowa, elevates his corn through a side door instead of through a hole in the roof. Takes a little more time to slide (and crank) the elevator into place, but Farr says it's worth it.



Photo: A. M. Wettach

Open space under the crib gives plenty of ventilation, and rats can't hide there, according to owner Willis Hinkson of Henry County, Iowa.



Photo: A. M. Wettach

Let the corn roll out into the sheller's drag elevator. Put removable boards between studs along both sides of the crib. Bob White, Iowa.

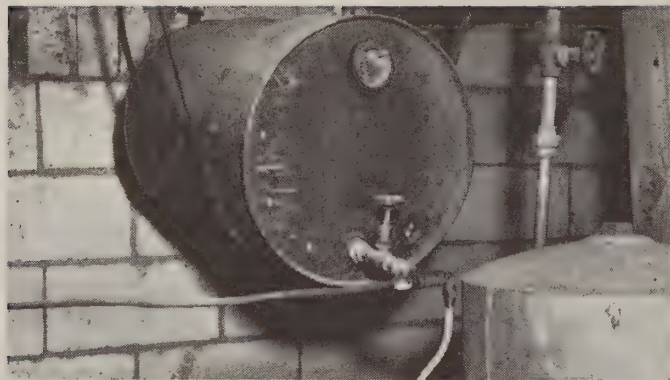


Photo: Raymond Kelly

Warms the furnace oil just enough to keep the burner blazing away in sub-zero weather. Cold oil flows from outside tank into this barrel, hung from the basement ceiling. "Warm oil flows and burns better," says A. A. Warneke, Teton Co., Mont.



Photo: John P. Miller

Moving skid-mounted equipment is easy on Oscar Wedam's Lewis County, Wash., farm. Tractor's hydraulic system lifts hook, attached to drawbar, to hitch on; drops it to release.



Photo: A. M. Wellach

Springs keep this overhead spout from breaking if you hit it with the wagon. Hook on an extra pipe to keep ground feed from blowing.



Photo: Francis A. Kutish

Why leave the hay mow light on? Red pilot light in the circuit shows outside the barn when the switch is on. C. Everett Smith, Jasper Co., Ia.



Photo: Wilbert Schaaf

The hay-mow trap-door doesn't bind, stick, or sag when you put it on tracks. Ordinary barn door tracks make it easy to open even in damp weather, and you don't have to clear chaff out of the way to shut it. Russell Mathews, McHenry Co., Ill.

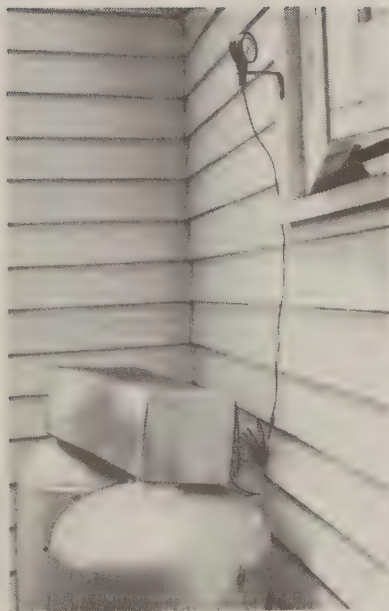


Photo: A. M. Wettach

A glance at this gauge tells you how much gas is left in the cylinder. M. E. Hickenbottom, Iowa, installed an automatic change-over, too (total cost about \$24); hasn't had to re-light his water heater in 3 years.

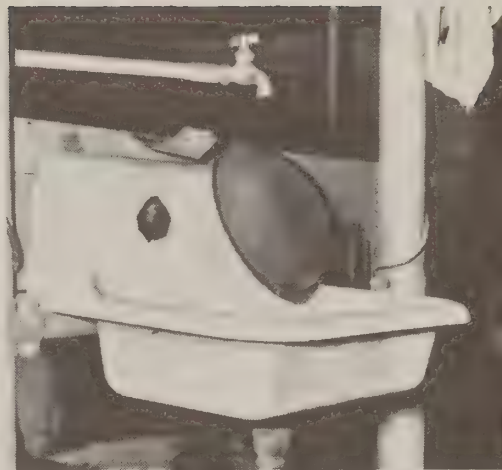


Photo: Wilbert Schaaf

Wash basin in the center of the dairy barn is a handy place to wash without having to go to the milk house. You save time, do a cleaner job, says W. D. Sharrett of Butler Co., Va.



Photo: Eldon S. Banta

No wallow around waterers at the Ohio Experiment Station, Wooster. Foreman stakes down woven wire, then pulls the waterer over top.



Photo: C. F. Marley

If hogs start a wallow around the waterer, move it. Put fountain on platform, attach hose (protect hose from hogs). Easier to clean, too.



Photo: Francis A. Kutish

Easy way to water hogs and poultry. Dale Britten, Chickasaw Co., Iowa, hooks sprayer pump to electric motor, takes water from stock tank to fountains.



J. I. Swedberg

Old kitchen sink set in barn wall waters the stock on both sides on the Bill Green farm in Redwood Co., Minn. Inlet pipe is insulated; hinged cover drops down. Heating unit cost for January: 45 cents.



Photo: Bob Myers

A dairy water bowl, connected to a faucet with a garden hose, keeps 30 cows supplied with water during the day time. This idea is used on the Lapeer County, Mich., Press Farm.

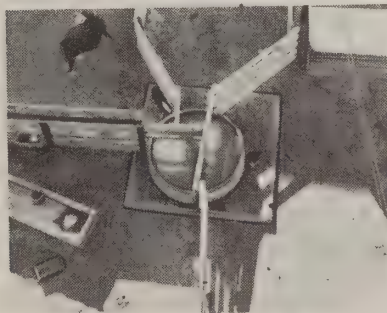


Photo: C. F. Marley

One tank furnishes water for cattle in four different yards. Concrete slab base keeps tank high and dry for Ray Fincham, Story Co., Iowa.

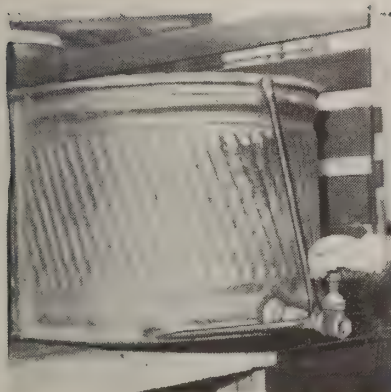


Photo: A. M. Wellach

Stops leaks. Weld braces to the tank spigot, and it won't break loose every time you bump it or hang on a bucket. F. C. Bell, Lee Co., Iowa.



Photo: William Turner

No wallowing in this water trough—that's an electric wire. Ed Helmins, Woodbury Co., Iowa.



Photo: A. M. Wettach

Automatic watering system for the pasture. Connect pipe to outlets on old tank wagon, put on a faucet for bucket filling, and hook to pipe leading to automatic waterers. Short hose gives you some leeway for coupling. Mark Collier, Iowa.



Photo: J. B. Mowbray

Weld a milk can top on your water-hauling tank. "The tank is easier to fill, you can see the water level, and the lid keeps out the dust and dirt," claims Jim Folley, Warren Co., Ohio.



Photo: Ray Anderson

"Hose beats pipe for hooking up a hog waterer in the field," says Dale Irwin, Sac Co., Iowa. Pipes break when hogs jiggle platform.

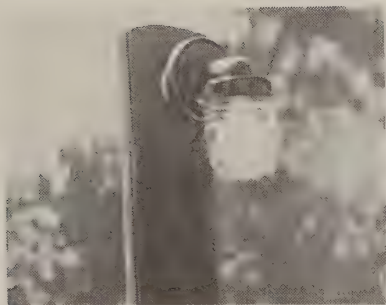


Photo: A. M. Wettach

This light is in the pump circuit. When it stays on too long, you know a float is stuck. Prevents mudholes for Karl Kneen, Henry Co., Iowa.



Photo: Francis A. Kutish

No gates to open, no mud to plow through! Jim Friar, Dallas Co., Iowa, puts out-in-the-field hog waterers near an all-weather road. He pulls his tank wagon to the side of the road, and spouts in the water through ordinary rain pipe.



Photo: Charles L. Stratton

They just drive around the range to feed grain and fill water pans at Arbor Acres Poultry Farms, New London Co., Conn. Driver flips lever on water spigot from seat, while a man in back tosses out grain from two tanks mounted on the truck bed.

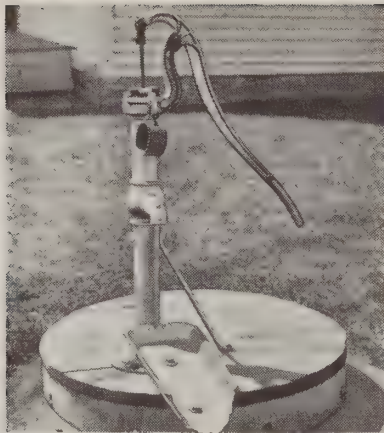


Photo: A. M. Wettach

Sanitary well curb made by Wilfred Hoaglin, Henry Co., Iowa. He set an old implement wheel in concrete, covered it with a tight platform, and added a metal spout.



Photo: A. M. Wettach

Gets rid of icy tank chores. Gas heater stays lit all winter, sawdust insulates tank. Cattle drink behind the windbreak. Harold Strum, Iowa.



Photo: Eleanor Gilman

When a time-clock turns off poultry lights at night, a solenoid (A) shuts off the water to a continuous-flow V-trough at Kenneth Lane's, Sullivan Co., N. H. Lights come on automatically in morning; water starts; hens are ready to work.

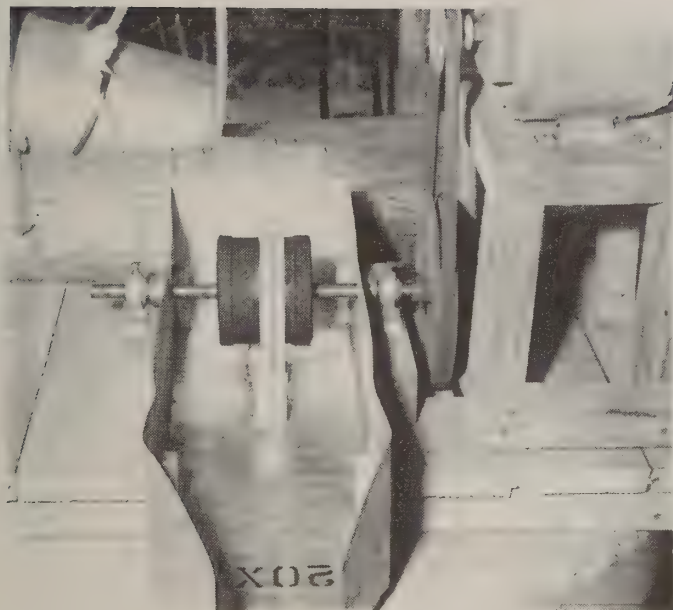


Photo: Durell Davis

Two wooden pulleys and a one-inch canvas belt throw 3 gallons a minute out of this 56-foot well. A 15-pound weight holds the lower pulley under water; top pulley has cover to catch water. Pump and $\frac{1}{4}$ -hp. motor cost \$25. W. Smith, Marion Co., Ala.



Photo: Rod Turnbull

Tanks fed by a pond! Fountain in center and at right are outlets from tanks covered with dirt back of the wall. Over-flow valves let warmer water trickle from pond and keep tanks ice-free. Logan Jones, Clinton Co., Mo.

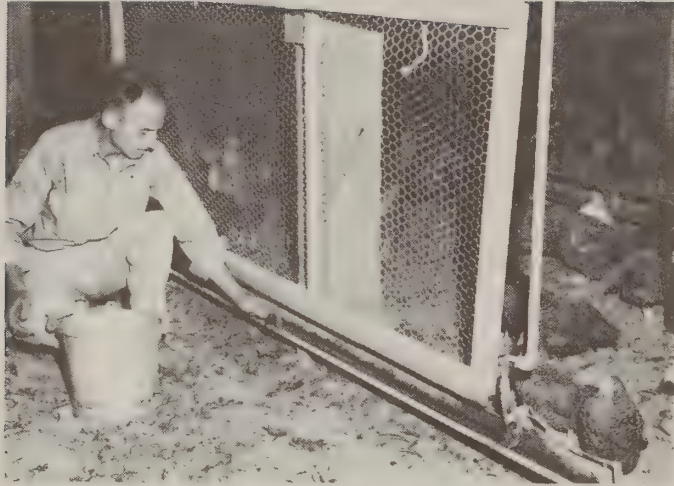


Photo: Charles Stratton

Wire panel guards keep chick water clean at the Gatty Farm in Cheshire Co., N. H. Panel hangs in center of trough, so chicks can drink from both sides, but can't walk in water. Trough is old eaves gutter, with short overflow pipe in center.



Photo: A. M. Wettach

Self-locking pump rod pin. Bend one end of a U-shaped bolt at a right angle so that it hooks around pump rod when it drops down.

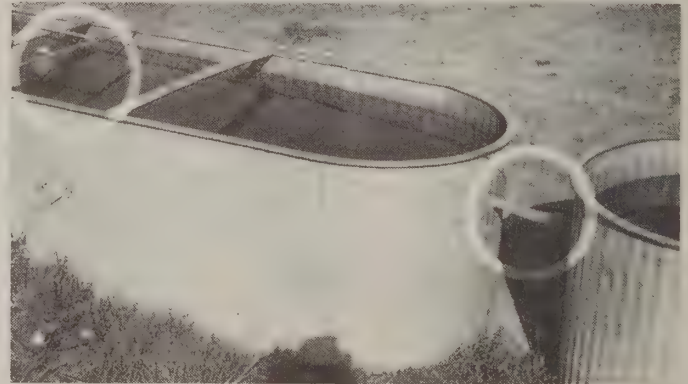


Photo: J. H. Staby

One float controls level in both tanks. A plastic hose connects spouts soldered into tanks. Paul Schintzius, Erie Co., N. Y.



Photo: A. M. Wettach

Need a good, heavy cover for the cistern or that unused well? "Fill an old implement wheel with concrete," says Warren Housel, Iowa.



Photo: Bob Bill

Let the windmill stop itself! As barrel rises, opposite end of the frame lowers and applies the brake. Gotthold Tanner, Tazewell Co., Ill.



Photo: Francis Kulish

If you have to wait while your tank-on-wheels fills up with water, try this: mount a stationary tank that can be filled during the day; then drain it into your water-wagon through a big pipe or hose. Wendell Peterson, Hamilton Co., Iowa, empties his 700-gallon over-head tank in just five minutes.



Photo: Herbert Jonas

Cotter pin in rod rising from float turns the pump switch on and off on Mrs. A. Z. Thompson's farm, Yakima Co., Wash. Guard protects float. Fine for irrigation or tanks.



Photo: Soil Conservation Service

No thirsty sheep here. No drowned ones, either! Pipes carry the water from tank to troughs; floats keep them from running over. Tank's sides are wood staves. Bottom is tamped earth, sealed with bentonite.



Photo: C. F. Marley

Add years to the life of stock tanks and feeders. Brush or spray on automobile under-coating to keep bottoms and troughs from rusting out. Victor Jostes, Montgomery Co., Ill.



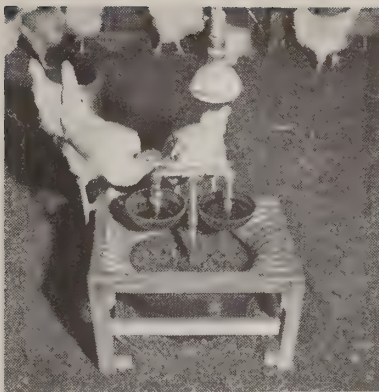
Photo: Dick Elmore

Birds reach through mesh to drink, don't spill on the litter. Drip valves in the outside pipe fill metal pans. Leslie Pollard, Calif.



Photo: Charles L. Stratton

A drinking fountain in the barn?
Beats standing on your head at the spigot; cheap to put in, too, says Stanley Smith, Hillsboro Co., N. H.



This heat lamp keeps waterer from freezing, lights pen at same time.

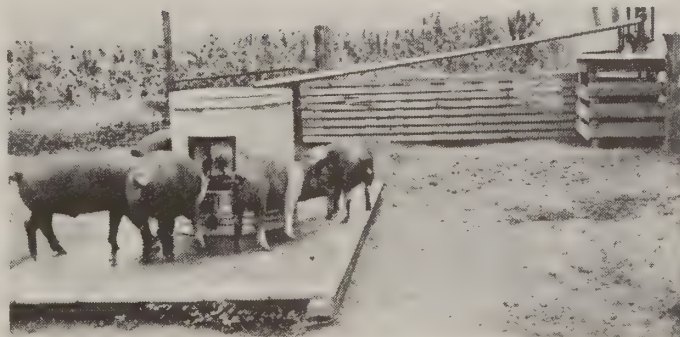


Photo: A. M. Wettach

Not everyone can do this, but if you can locate a well in a fence corner you'll have water in two to four fields. It fits in great with crop rotations on the Latimer Davis farm in Washington Co., Iowa. He has easy-to-get water for the pasture, and it's on tap when he starts hogging down corn.



Hog pans welded to pipes and holding automatic waterers catch water that hens spill. Hose connects waterers to water tap, giving insulation against freezing and ease in disconnecting waterers for repairs. Madrid Hatchery, Madrid, Iowa.



Photo: Ovid Bay

Pasture one manger wide. Fifty cows stand like they're at a feed bunk in this 8-acre field of Sudan on the Adams Dairy Farm, Jackson Co., Mo. Moves are in 3' to 6' strips. "Cows get one-third more pasture, and grass comes back faster because there's less trampling," says Manager John Cooper.



Photo: Durell Davis

Shoots feed clear to the back. An 8-inch auger in V-bottom wagon box empties into old silage blower that fills self-feeders or bins for Elmer Hayes, Ogle Co., Ill. PTO drive.



Photo: Marvin B. Clark

To load silage without spilling, swing this deflector around under the chute. U-bolts fasten it to hoops. Wagstaff Cattle Co., Kan.



Photo: Eleanor Gilman

Slick way to feed pellets. William Blanchard, Bennington Co., Vt., puts a barrel on his tractor. A sliding gate in bottom adjusts flow.



Photo: Marv Russel

"Put up an electric fence wire, and young feeder calves soon learn not to jump up into the bunks," says Milton Nelson, Boulder Co., Colo.



You'll save yourself a lot of scooping if you sink your grinder into the alley floor. Grains dumped in front of the mill are easily pushed into the feeder, says Walter Breyfogle, Lake Co., Ill.



Photo: Cameron Harvey

Does everything but count the cattle. Self-propelled cart goes to the end of the bunk, meters out silage on the way back. A ½-hp. motor, a ratchet drive and apron from an old manure spreader, and binder trucks do the work. Thomas Russell, Ill.

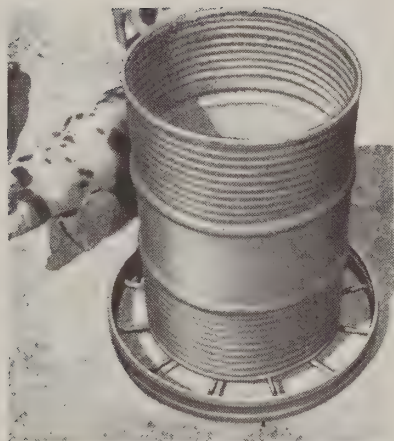
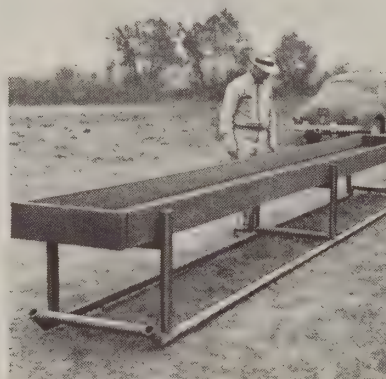


Photo: John A. Rohlf

Knock the bottom out of a barrel (cover top), set it on a wheel, and you have a dandy self-feeder, says Roy Danielson, Lincoln Co., S. Dak.



Both feed and hogs are protected by this home-made self-feeder on the John Keithley farm, Lake Co., Ind. Panels on the ground keep the hogs from rooting out holes.



A feed trough for any place on the farm. It's skid-mounted; can be moved often to keep the ground from getting "tromped." Made by Dewey Butts, Harris County, Texas.



Photo: Rob Aiken

Set a concrete block foundation like this under a portable crib, and you can back a trailer or wagon between the walls. Just pull a trap-door to load. Otto Orschell, Wayne Co., Ind.



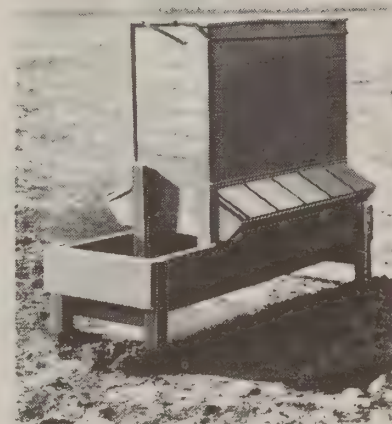
Photo: Bob Kull

Takes the work out of feed mixing. Al Schwarzwalter, Yakima Co., Wash., welds two barrels end to end, and runs a shaft through the center. A pair of pulleys gears down the electric motor (upper left). Feed drops out through the hinged door.



A. M. Wetloch

Hinged door, opened inward at the bottom of this silo chute, sends the silage sliding down the shed roof to a wagon. Idea comes from Gilbert Schuerman, Henry Co., Iowa.



Calf self-feeder made by nailing a hog feeder to a feed bunk. "Calves are just as smart as pigs," says owner A. F. Vincent, LaPorte Co., Ind. "They catch on in a hurry."



Photo: George R. Harrison

Load silage with corn picker's elevator. With a hopper on the end, and an electric motor, you can put silage in a wagon as fast as it comes down the chute. In fall, elevator goes back on the picker. C. Zepik, LaPorte Co., Ind.



Photo: Dick Elmore

Combination gate, stanchion, and manger makes it easy to feed, handle calves without stepping into pen, say Bailey Bros., Glenn Co., Calif.

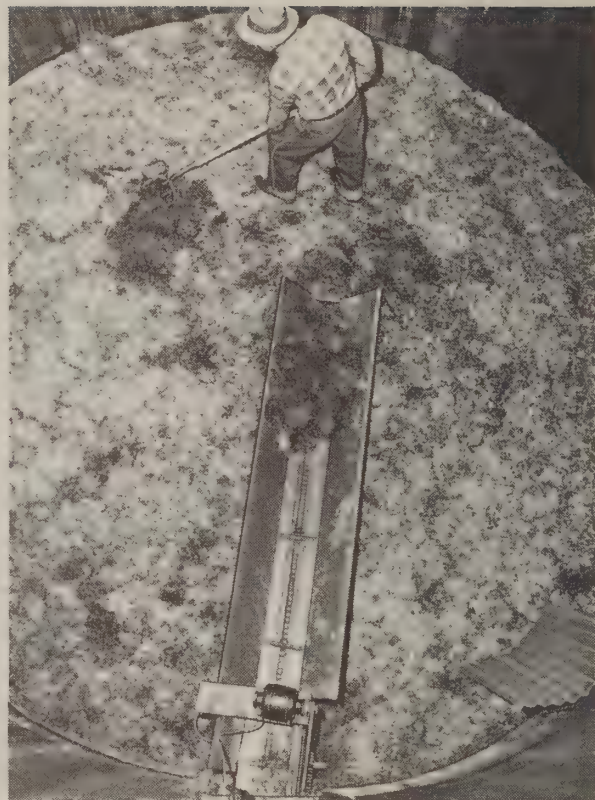


Photo: R. G. Fowler, Jr.

What a time-saver this is; and easy on the back, too. It's a home-made conveyor that eliminates throwing or carrying silage to the chute for G. K. Ausin, Marion County, Ore. Angle iron scrapers are welded to chain.



A piece of board, four inches square, and the small end of an old milk-er teat cup inflation, makes a good trainer for teaching calves to drink from a bucket on the farm of W. A. Meyers, Coles Co., Ill. You tried it?



Photo: Leo Fryman

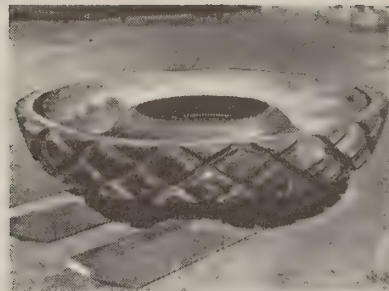


Photo: Harry Groves

Old tractor tires, sawed in half, make fine portable feed bunks for young stock. The tire is bolted to a rim which is fastened to the skids

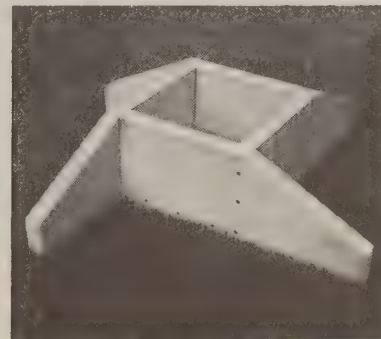


Photo: Ralph L. Ricketts

Cattle won't turn over this salt box. Just four 25-inch pieces of 2"x10" plank with some No. 20 spikes in it, says Bob Hill of Boone County, Mo.



Photo: Elma Waltner

Galvanized pig feeding pans, welded to strap iron hangers and hooked on calf pen partition, keep feed clean. W. H. Waltner, Turner Co., S. Dak.



Photo: Rob Aiken

The lightest wind turns this box opening away from rain and wind. It pivots on roller bearings. P. F. Fitzhugh, Culpeper Co., Va., has pipe bases in each pasture, moves the box with the cattle.



Chuck Benn

Sows have a hard time tipping over this trough, made by welding an old disk to part of small barrel. Used by Chas. Albaugh, Polk Co., Iowa.



Photo: Frances Kutish

When fall rains or cold winds start, line up your hog houses this way with their backs to the wind, say hog men at Iowa State College. It makes a good wind-break for young pigs.



Photo: Al Goff

Just twirl the wheel to knock down bridged-over feed. Agitator runs length of self-feeder, has 15-inch teeth. Ed Watje, Jackson Co., Minn.



Photo: C. F. Marley

Weld heavy strap iron to bottom of pan, hook over gate, and this "sow skillet" won't get shoved around. Wired low on the gate, it won't tip.



Photo: C. F. Marley

Here's a portable pig creep that's easy to take apart and move around. Norman Albaugh, of Story Co., Iowa, made it with discarded corn-picker rollers set in the boards.



He mixes semi-solid buttermilk with water in barrel, pulls long-handled plug, and liquid runs through 1½" pipes into three troughs.



Photo: Tony Fellhauer

This rig whipped range hay feeding for Jack Markley of Albany County, Wyo. The big fork can bite out a half-ton chunk from a stack at one time. Four trips, and the 200 cows are fed. He scatters the hay himself by putting the truck in low and digging the hay loose "on the run."

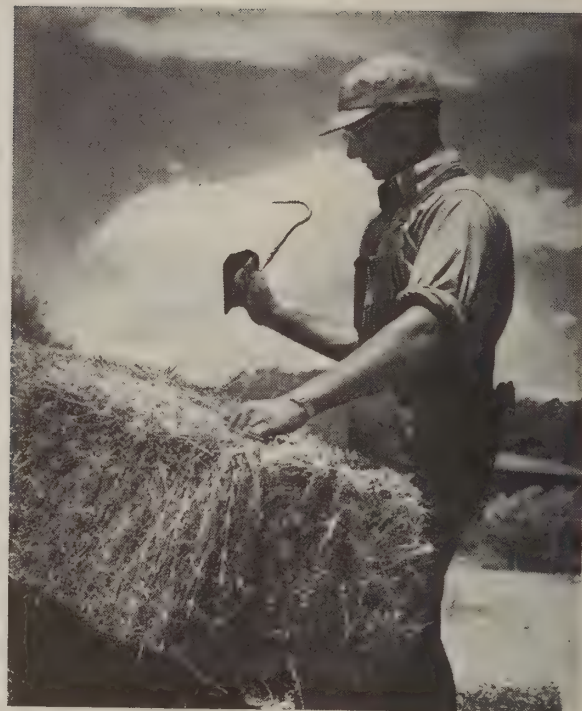


Photo: Jack Curtis

Here's how to keep knuckles from getting scuffed when you handle bales. Dale Sheldon, Kingman Co., Kans., welds metal guard along handle of bale hook.



Photo: H. M. Briggs

Takes care of ten ewes at a time. You can feed grain first, then hay. Each side is two feet wide. It's easy to handle; takes little space. Developed by Okla. A. & M. College.



Photo: R. G. Fowler, Jr.

Pick-up dumps itself—works like a teeter-totter. Dick Lowe, Gilliam Co., Ore., nails planks to a 3" pole located just ahead of the tail-gate.



Photo: A. M. Wetloch

An easy way out: build stanchions with room in front for hay and grain. Hook nipple pails over the manger. Willis Kielkopf, Keokuk Co., Iowa, cuts out nuzzling: he feeds milk, then keeps 'em there for hay and grain.



Photo: Geo. R. Harrison

Your field chopper can help feed the steers. William Allers, Kankakee Co., Ill., put on hopper, chops corn into box at end of feed bunk.



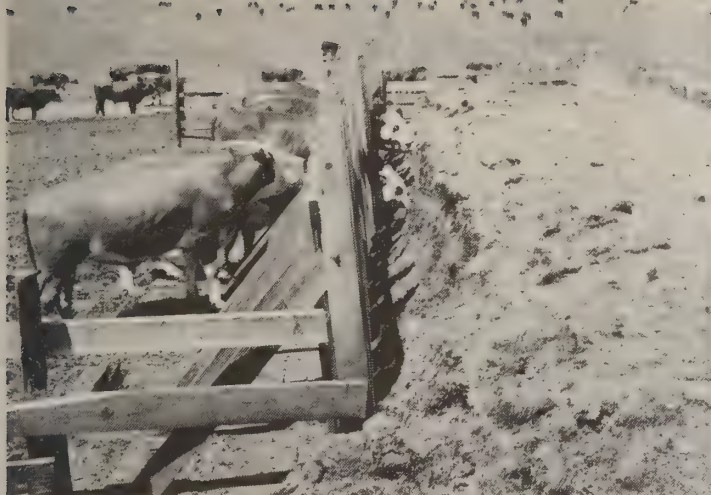
Photo: Dick Elmore

Removable manger on this pen makes for easy cleaning, acts as a gate for putting calf in or out. Tomlinson Bros., Stanislaus Co., Calif.



Photo: C. F. Morley

A baffle wall does the work. No more bunks to fill when you open one side of the silo room and build a wall sloping from the chute to the manger to spread the silage as it drops. Wm. Engleman and F. N. Berns, Ill.



Secret of this self-feeder is the angle. Stanchions 5 feet high tilt back $7\frac{1}{2}$ inches—just enough to keep cattle from skimming off the top. The angle makes them eat down instead of up . . .



. . . they get right down on their knees to slick up the stack. When cattle clean up silage, Irvin Gee, Glenn Co., Calif., pulls platforms ahead with tractor.



Poultry range shelters on stilts and cross-bars make farrowing shelter for fall pigs on Linden Poultry Farm, Starke Co., Ind.



Photo: A. M. Wettach

Feed keeps dry, so does the man feeding. That's what Fred Anderson, Henderson Co., Ill., likes about his sheltered bunks on a crushed-rock platform. Feed rolls out on track.



Photo: Kenneth R. Imig

Put your grinder inside the crib—let it blow the ground feed right into the feed-bunk or self-feeder. Clyde Johnson, Iroquois Co., Ill.



Photo: Bob Myers

This one-horsepower electric hammermill grinds mixed grain from an overhead bin at it's needed by Alson Schoults, Lapeer Co., Mich. He turns on the mill; does his other chores; comes back to a full dairy cart.

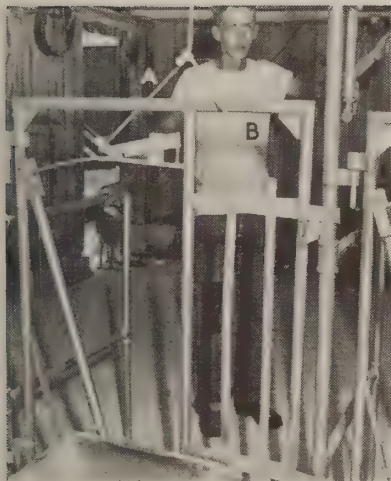


Photo: Roy Holding

Close-up view: first tug pulls short rope (A), opens stanchion; harder tug pulls rope (B), opens gate latch, swings gate forward and lets cow out.



Side-boards that keep cows from throwing out hay, swing down out of the way when not in use. The boards are held up by a heavy spring (see arrow). Device was rigged up by Harry Townsend, Henry Co., Iowa.



Photo: Wilbert Schaal

Doors in side of barn open up so feed hauled on inside track (A) can be shoveled into manger in open shed without milling among animals. By John Tyssowski of Fauquier Co., Va.



Photo: C. F. Marley

To make molasses in January flow like it's July, thread the valve stem from an old truck tire into the bung, and hook on a tire pump.



Photo: E. Waltner

Turn on a dime with this barn cleaner by locking either wheel brake. C. R. Fliginger, Turner Co., S. D., cut Model A in two behind transmission, put rear end under engine, and hooked up with chain drive. Fan pulley runs pump for hydraulic lift.



Photo: W. W. Kuhlmann

Instead of tying cauliflower leaves to blanch the head, W. W. Kuhlmann, Onondaga County, N. Y., holds them up with clothes pins.



Photo: R. R. Parks

This windmill on the F. B. Ayers ranch in Ventura County, Calif., trips a hammer against a saw blade. Birds just can't take all the noise.



Photo: A. M. Weltach

Check average weight without stirring up a ruckus catching chickens. Birds like this scale platform, says James Russell, Henry Co., Iowa.



Photos: Lee R. Fryman

Pen on wheels makes it easy to take newborn calf to its mother to nurse night and morning, first few days, at the Broull farm, Kane Co., Ill.



Folks at the Ebensshade Turkey Farm, Lancaster County, Pa., retail their birds in plastic bags, use a vacuum cleaner to draw the bags tightly around the carcass.



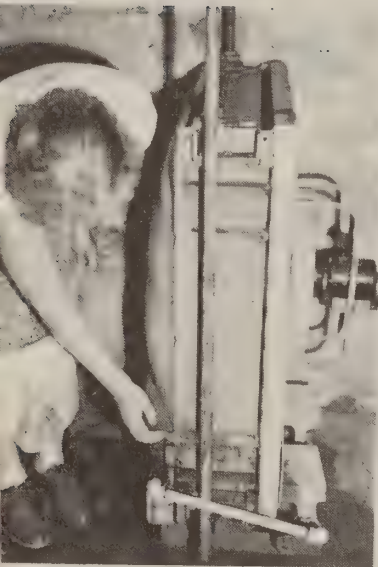
Photo: George W. Beshore

To whack off lids without bending the edges, cut the rubber off half of an old washing machine wringer roller. R. I. Morton, Boone Co., Mo.



Photo J. M. Eleazer

Siphon out pond water with plastic pipe. "A good way to try out irrigation if you have some level land below your pond," says Olin Helms, Lancaster Co., S. C. He waters 12 acres, grew 124-bushel corn, and got a premium for truck crops last fall.



Photos: Dick Braun

Fan blows through radiator and water-soaked sack to keep egg room at 55 degrees on Harry Burns farm, Tuscola Co., Mich.



Photo: Harold Severson

Milk can top is a home-made bagger for August Korthauer, Houston Co., Minn. He winds sack around top; swings down catch lock to hold it.



Photo: Rod Turnbull

This is one way to fix a sloping barnyard. Arthur Wuttkee built up a feeding floor which he can clean in a jiffy by pushing the manure off a concrete lip and into the spreader, on his farm in Clay County, Mo. He stores hay in open mow above the floor.



Hi Sibley

Weld a couple of spikes to your manure forks and use them as sleds for moving bales. Tip bale on—prongs keep it from slipping off. Used by the Brookside Dairy, San Bernardino Co., Calif.

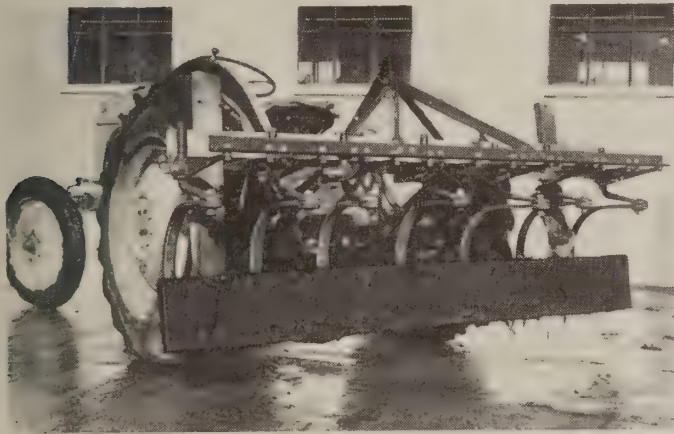


Photo: Paul K. Fanning

Slick rig for cleaning off the feeding floor. Gib Foster and Son, Snohomish Co., Wash., reverse the spring tooth shanks on their tractor cultivator tool bar carrier, and bolt on a 2"x10" plank; add a 2"x4" across the top for extra strength.



Photo: Bob Fowler

Once they're sure that the ewe will claim both twins, Pete and Jack Ospital give ewe and lambs identical paint brand numbers. Then when another ewe loses her single lamb these California sheepmen can be sure of finding a twin to "graft" on her.

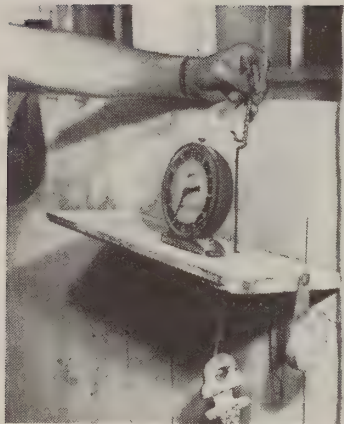


Photo: Wilbert Schaal

Easy way to shut off current. When alarm rings, hook slips off winder, and weight pulls lever at switch box. Clanyard Farms, McHenry Co., Ill.



Cow scratcher is plenty busy on P. L. Miller farm, Larimer Co., Colo. Saves wear on bunks and fences; keeps cattle content. Metal on posts is for head scratching.



Photo: Jack Riggle

This spring-loaded cattle scratcher helps keep down flies in summer. Bob Caster, Lancaster Co., Neb., wraps the chain in burlap, and soaks it with fly-killer.



Another slick way to get "scratch mileage" from an old tractor tire. Ralph Alt, La Porte Co., Ind., sets two posts—bolts the tire to them.



Photo: Kenneth R. Imig

Keeps sparks from flying. Make a trash burner from concrete reinforcing wire, and hinge a lid on top. Morris Fleming, Iroquois Co., Ill.



Photo: C. F. Marley

Tired of splintering sledge handles when you miss the stake? Try welding on a strap-iron guard like this, but leave room for changing handle.



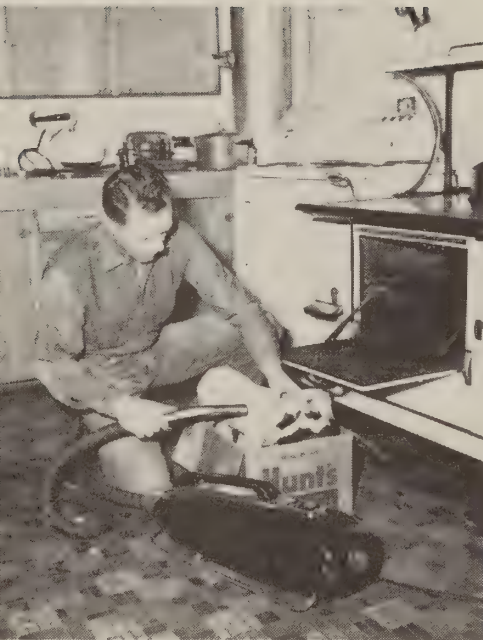
Photo: Baicourt

After gardening ends, fill up the sprayer, add rust preventive, and it will serve as a fire extinguisher.



Photo: C. F. Marley

Cuts down chilling drafts, helps hold the heat. To dry out lambs in a hurry, put an old half-barrel under a heat lamp. Fill barrel part way so that the ewe can see lambs over side, and won't refuse them later. Works fine for pigs, too.



Five minutes with the vacuum cleaner—hose reversed to blow warm air—and Roy Maynard, Idaho, gets a dry lamb back to its mother. Helps Roy get some sleep during lambing.



Photo: Ray Anderson

Quiets down the cow barn. Just put a car muffler on the milker and you can talk in a normal tone of voice, says Joe M. Weber, Wood Co., Wis.



Photo: Ron Logan

No more skinned knuckles. Weld teeth of $\frac{1}{4}$ " plate on rod to fit large and small bungs. Texas scientist Homer Rea notches big tooth to hook over barrel rim.



Photo: Charles Philip Fox

Iron grill soon teaches cows to stay out of the gutter. Bars are unpleasant to stand on even when covered with manure and bedding. Made by Herb Schwoch, Waukesha Co., Wis.



Photo: Herbert Pike

Hang these heat bulb guards over the farrowing pen or set them in a corner brooder. Mount socket on lid, put in a gravel screen bottom.



Photo: N. Gordon—Black Star

Lay tile without stooping. Use this L-shaped tool to lower and turn the tile. The probe's larger, bullet-shaped tip makes it go into the soil easier when you're hunting buried tile. Lester Lane, Clinton Co., Ohio.



Photo: A. M. Wettach

Protects two 550-gallon gasoline tanks from the sun. Harvey Hunt, Jefferson Co., Iowa, uses concrete floor for storing oil and greases.



Photo: Gertrude E. McVickar

Here's a barrel holder that's light, strong, and easy to make. Carlton Hardy, Williams' Co., Ohio, cuts up a leaky drum to make two stands.



Photo: Ray Anderson

Saves oil; easier on the back, too. Lee Boettner, Atchison Co., Mo., made this cradle for heavy barrels from the teeth of an old dump rake.

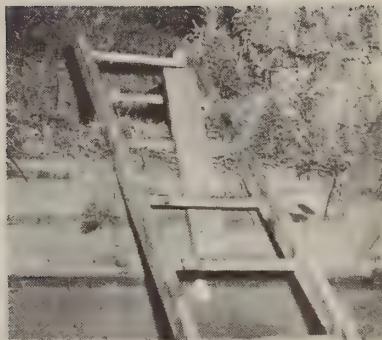


Photo: J. B. Mowbray

Sure way to keep the hay-mow ladder from sliding. Just nail a small board to the floor joist, so that you can slip one of the top rungs over it.



Photo: L. H. Houck

Beats all what you can do with an electric drill. Roy Kaiser, Cole Co., Mo., uses his to turn the sausage grinder; he says it works fine.



Photo: C. F. Marley

No more chipping the car doors on the garage wall. Don Marley, Montgomery Co., Ill., hangs a worn-out rubber combine roller at door level.



Photo: Bob Gilmore

Hasn't cracked an egg yet! This buggy gives the collecting baskets a gentle ride from the laying houses to the egg storage room. Paul R. Schwabe, Sonoma Co., Calif., bolts bicycle wheels to an old bed spring; puts very little air in the balloon tires, so they're soft and cushiony.



Photo: G. O. Oleson

"Keeps my feet warm," says Edward Dickinson, Mass. He threads electric thermotape through a wooden frame to make this foot warmer.



Photo: Cameron Hervey

Ben Zenk, Madison County, Ill., ties aluminum foil strips at the end of springy wires. The crackling and dancing discourages winged thieves.



The pipes that carry water to the laying house wind through the egg cooling room at Hamilton Poultry Farm, Allegan Co., Mich. Pipes make handy egg storage shelves, too.



Photo: Richard C. Bell

Calf pens have hinged partitions that swing up out of the way for cleaning, let you buzz through with a power scoop. Building has four 8-foot-wide sections running across it, with 4-foot chore alley between each two, lets you feed on both sides.

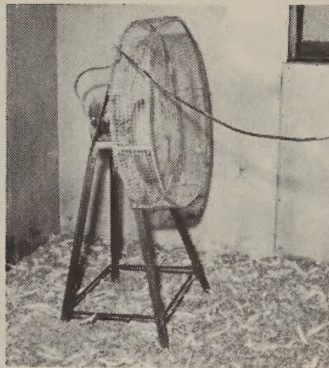


Photo: A. M. Wettach

Keeps the laying house cool in summer. Arthur Centner, Des Moines Co., Iowa, mounts a 3-bladed fan on motor shaft, welds on legs and a protective screen.



Photo: A. M. Wettach

"Easier on the shins, and safer than wheel climbing," says Robert Foggy, Henry Co., Iowa. Just bolt a piece of strap iron to the wagon sill.

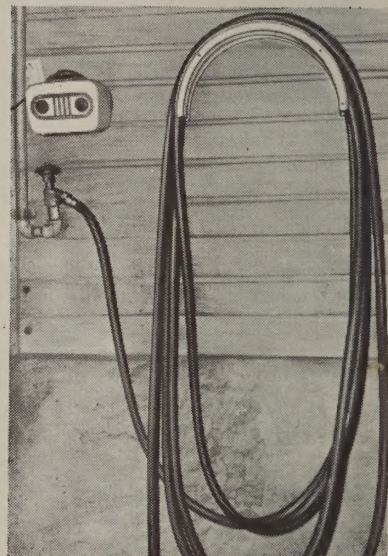


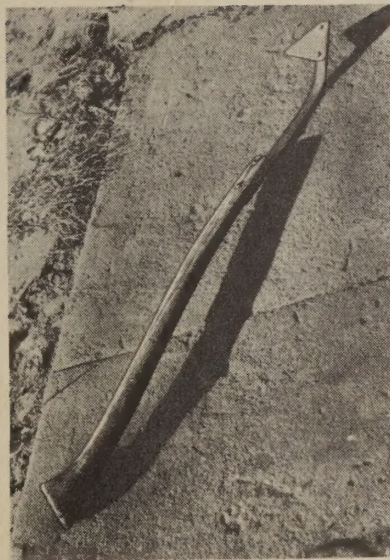
Photo: John W. Ternus

"Half of an old tire rim makes an ideal holder for the water hose," says Peter Panizza, Solano Co., Calif. Hose fits into rim's flanges.



Photo: A. M. Wettach

Pouring is a lot easier (safer, too) if you make spouts for your fuel cans out of old plumbing fittings. Gene Ferguson, Mahaska Co., Iowa.



Big, tough weeds are goners when you hook them with this. Cutter is made by riveting a sickle section to part of an old axe handle.



Photo: C. F. Marley

No hand-over-hand tugging to get this hay fork back. Weight rides down cable, pulls back carrier, for Leo Singler, Montgomery Co., Ill.



Photo: C. F. Marley

No roosting on these rafters—"Hens just don't have the nerve," says Carl Hopwood, Montgomery Co., Ill.

